

# ***STREETSCAPE MASTER PLAN***

- ***OVERALL STREETSCAPE CONCEPT***
- ***GUIDELINES AND CRITERIA***
- ***BIKEWAY PLAN***
- ***PROTOTYPICAL PLANS OF STANDARD  
AREA TREATMENTS***
- ***SPECIFIC AREA PLAN RECOMMENDATIONS***

# OVERALL STREETSCAPE CONCEPT

## Streetscape Planting Concepts

In order to provide a sense of order and organization to the street corridors, "street tree planting themes" have been created to strengthen and more clearly define a streetscape and hierarchy of City thoroughfares. Because the City of College Station has very few medians to establish a strong planting concept in the center of the street, and also has very wide rights-of-way, the tree themes should be kept quite simple and direct. On special streets, one or two tree species make the strongest visual impact distinguishing the street corridor from private development. On smaller less important streets, the tree specie list is more general to offer the greatest

variety in tree form, texture, seasonal color, and flower. The specie selection is based on hardy, native tree stock generally available in the industry that relates to differing private developments and site settings such as existing trees, topography, and drainage conditions.

The following Street Tree Planting Themes shall apply:

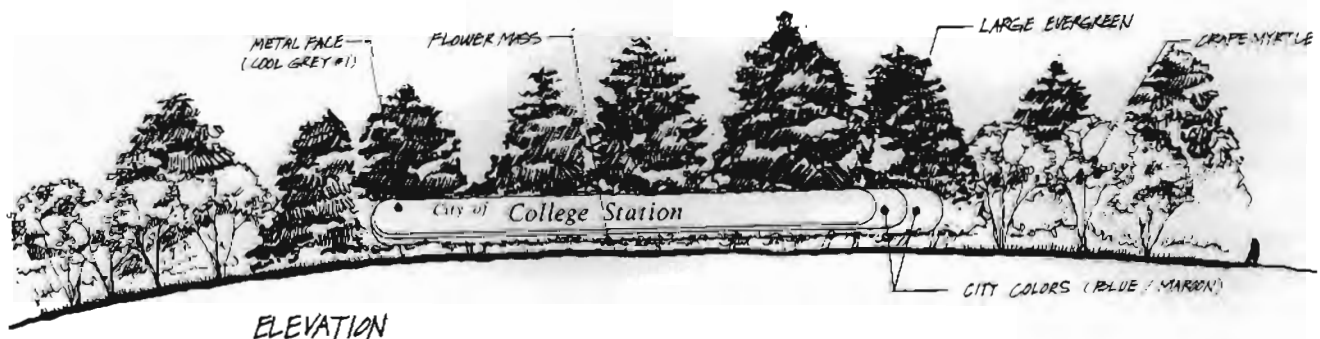
### Corridor A - University Drive.

A formal row of Water Oaks, regularly spaced. Irregularly spaced Live Oaks and Red Tree Crapemyrtle shall be used on the north edge of the TAMU campus between Texas Avenue and Wellborn Road integrating into the same species planted along the campus edge. Water Oaks are an excellent upright oval form street tree with

yellow fall color that is hardy in the area. This large growing shade tree, when used fronting commercial areas, allows view under and around its upright oval form to graphics and signage beyond.

### Corridor B - Texas Avenue.

A formal row of Live Oaks regularly spaced with single, formal rows of Tree Yaupon temporarily used under overhead utility lines. Red Tree Crapemyrtle shall be used informally as understory flowering trees between University Drive and George Bush Drive across the east edge of the TAMU campus. Use of the Live Oaks with their evergreen quality strengthen the existing Live Oaks along the east campus edge and make it a logical choice for this corridor.



**Corridor C - TAMU Core Campus Edge.** Informal plantings of Red Tree Crapemyrtle along with loose plantings of Live Oaks ring this older historic core of the campus. The Red Tree Crapemyrtle long blooming period and fall color make it an excellent choice.

**Corridor D - George Bush Drive.** Formal rows of Red Oaks regularly spaced. Red Oaks were chosen because of their stately form, seasonal color, and the ability of obtaining matched specimens that are readily available in the industry. The new main entrance to the Presidential Library site should allow the library project tree, when selected, to dominate the trees selected in the immediate area.

**Corridor E - Highway 30.** Informal plantings of Cedar Elm and White Tree Crapemyrtle. Cedar Elms should be used along the ROW edge as the primary tree. Their up-right form and potential large size will allow views under their canopy to commercial signage and graphics. White Tree Crapemyrtles are selected for their long blooming periods and should be used to provide continuous accents of color along the corridor.

**Corridor F - Wellborn Road.** This major north/south corridor provides major access to the

TAMU Campus. Informal groupings of Willow Oak and Cedar Elm as the primary shade tree with accent ornamental tree planting of Red Bud and Tree Yaupon is the tree selection for this corridor. These tree species should integrate well into the existing forested areas to the south and the more urban areas to the north.

**Corridor G - F.M.2818.** This western and southern loop around the city has many undeveloped parcels of land with stands of native trees. With many new developments that will save the existing trees on private property, it is important that the tree theme on this corridor remain as natural and varied in tree species as possible. Shade and ornamental trees should be selected from the "Major Arterial Group A" plant list.

**Corridor H - All Minor Arterials.** Because of the desired need for variety in street tree planting, primarily within the residential streets of the City, informal tree plantings should be selected from the "Minor Arterial Group B" plant list. Reference **Exhibit Thirteen.**

Special streets such as the major arteries of University Drive and Texas Avenue link main visitor approaches to the University. The articulation of these important corridors should be simple and direct, providing a strong

connection from perimeter East Bypass, FM 2818 loop as well as at the city limits on Texas Avenue. A "frame of key streets" around the older portions of the university include Texas Avenue, University Drive, Bush Drive and Wellborn Road. These streets should be closely integrated into the campus edges forming a stronger campus perimeter.

The other key factors in improving the visual appearance of the city include:

- Strengthen the landscape ordinance as it applies to the screening of parking and dumpster locations.
- Provide a stronger emphasis on denser landscape development of site perimeters rather than the interior portions of sites.
- Provide stronger incentives and guidelines for saving existing trees particularly in the south and southeastern portions of the city.

- Require additional tree planting for properties adjacent to Major and Minor arteries.

- Encourage private participation in planting trees on properties along Collectors.

- Strengthen the City standards and regulations on walks, drainageways and bike systems.

- Establish continuity in providing a "family of streetscape elements" to improve the streets' visual appearance.

The streetscape plan should have a level of flexibility in its implementation. Special project areas such as Texas Avenue, Eastgate Entry Parks, Northgate Commercial Area, and the FM 2818 Portal at University provide initial project areas to encourage community involvement in implementing the plan.

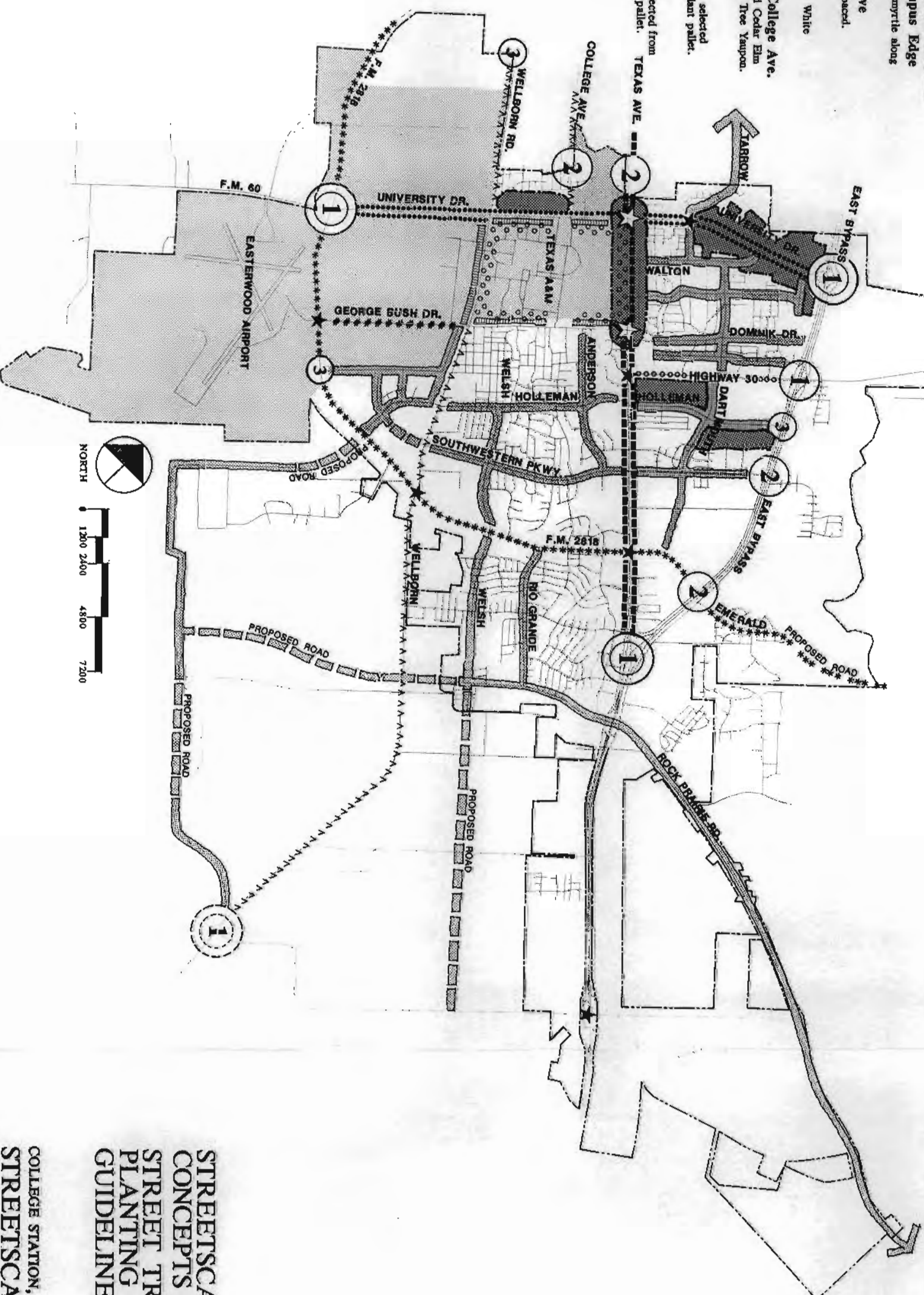
## **GUIDELINES AND CRITERIA**

To achieve the concepts outlined in the previous section, the following **Guidelines and Criteria** have been developed which address implementation strategies. These guidelines and criteria will address:

- *Streetscape Element Zones within the R.O.W.*
- *Creation of Landscape Reserves*
- *Parking Screening*
- *Landscape Requirements Within Parking Areas*
- *Planting Standards and Guidelines*
- *Irrigation Guidelines*
- *Open Drainageways and Culverts*
- *Dumpster Placement and Design Guidelines*
- *Design Standards*

# LEGEND

- Corridor A - University Drive Corridor  
A formal row of Water Oaks, regularly spaced.
- Corridor B - Texas Ave.  
A formal row of Live Oaks regularly spaced with single, formal of Tree Yaupon under overhead utility lines.
- Corridor C - TAMU Core Campus Edge  
Informal plantings of Red Tree Crapemyrtle along with loose plantings of Live Oaks.
- Corridor D - George Bush Drive  
Formal rows of Red Oaks regularly spaced.
- Corridor E - Highway 30  
Informal plantings of Cedar Elm and White Tree Crapemyrtle.
- Corridor F - Wellborn Road/College Ave.  
Informal groupings of Willow Oak and Cedar Elm with accent plantings of Red Bad and Tree Yaupon.
- Corridor G - F.M. 2818  
Shade and ornamental trees should be selected from the Major Arterial Group A plant pallet.
- Corridor H - Minor Arterials  
Informal tree plantings should be selected from the Minor Arterial Group B plant pallet.
- Gateways
- Future Gateway
- Major Portals
- Minor Portals
- Special Intersections
- Major Intersections
- Special Districts
- Texas A&M Property



## STREETSCAPE CONCEPTS and STREET TREE PLANTING GUIDELINES

### COLLEGE STATION, TEXAS STREETSCAPE PLAN

NEWMAN JACKSON BIBBERSTEIN, INC.



## Streetscape Element Zones Within the R.O.W.

Many diverse elements are found within the R.O.W. along most major arterials within the City. Utility lines, Traffic control boxes and signal poles, directional signage, sidewalks, drainage swales and pipe, and

landscape material all vie for the same limited space. While it would be a desirable goal to allocate specific areas within the R.O.W. for each element it is important to recognize that as conditions vary about the City it might be necessary to shift locations of certain elements.

The Streetscape Plan therefore recognizes and encourages this need for flexibility and recommends the following general guidelines:

- *Residential and Collector*

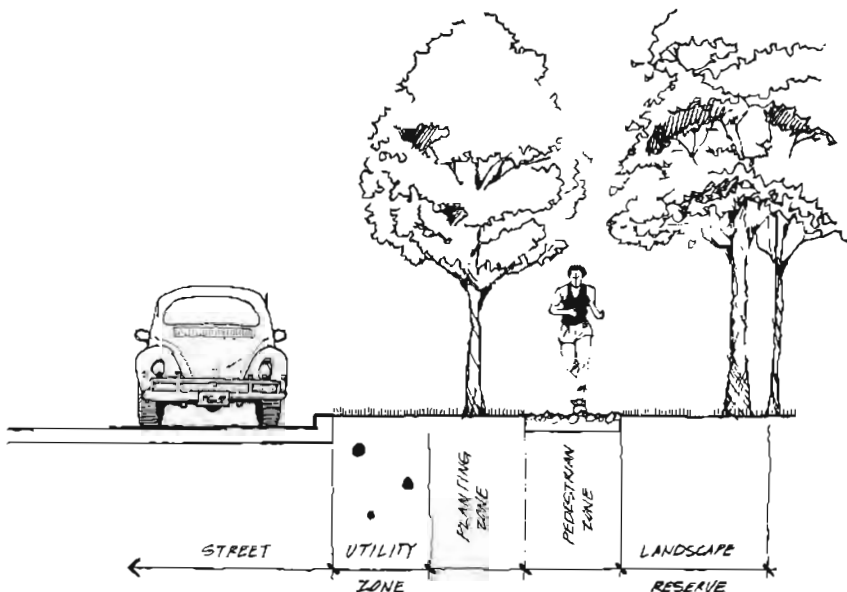
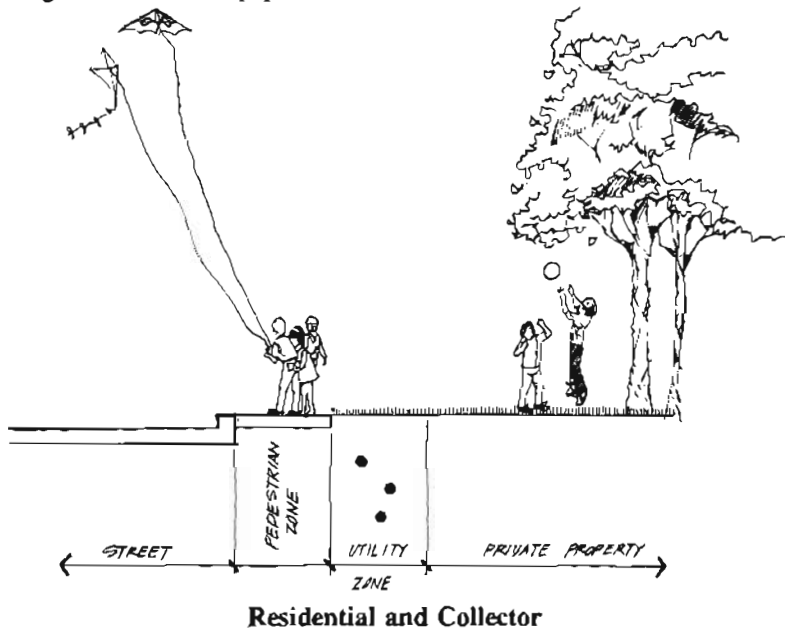
Pedestrian Zone - Located on both sides of the street; minimum width six (6) feet (final width requirement should vary based on amount of pedestrian traffic anticipated).

Utility Zone - Located on both sides of the street between the pedestrian zone and the R.O.W. line.

- *Arterials, Parkways, and Commercial*

Pedestrian Zone - Located on both sides of the street; same width requirement as above.

Utility Zone - Located directly in back of curb on both sides of the street.





## Creation of Landscape Reserves

To foster the development of a greener, softer image along the major and minor arterial thoroughfares of the city, it is recommended that the minimum setback requirements along site perimeters adjacent to these thoroughfares be increased from eight (8) feet to twenty four (24) feet. Parking will be permitted within these landscape reserves when appropriately screened in accordance with guidelines outlined below in the Parking Screening Section and when broken up by randomly placed islands with minimum spacing of twenty-seven (27) feet to a maximum of sixty-three (63) feet. Existing trees shall be preserved within these landscape reserves. Point credit toward the existing landscape ordinance will be allowed if existing trees are protected in accordance with guidelines outlined below under Preservation of Existing Trees and Natural Resources.

Point credit toward the existing landscape ordinance will be allowed for landscaping these reserves with groups of shade and ornamental trees when no trees exist. Specific requirements for the different street hierarchies are as follows:

Along **major arterials** where no trees exist it will be required to provide one shade tree (min.

4" cal.) per 25 lineal feet of landscape reserve. Two ornamental trees may be substituted for one shade tree. These trees should be loosely spaced in an informal arrangement.

Along **Texas Avenue and University Drive** it will be required to place water oaks (min. 4" cal.) at 60' o.c. Where overhead utilities conflict, small trees (tree yaupon, min 8'-10' ht.) will be planted until utilities are placed underground.

Along **minor arterials** where no trees exist it will be required to provide one shade tree (min. 4" cal.) or two ornamental trees per 32 lineal feet of landscape reserve. Figures 1, 2 and 3 illustrate the requirements of the landscape reserves.

- PROVIDE TREE PROTECTION DURING CONSTRUCTION
- ALLOW HEAD-IN PARKING (18') INTO EDGE OF RESERVE WITH RANDOM SPACED PARKING ISLANDS OCCURRING AT A MIN. OF 27' TO A MAX. 63' APART

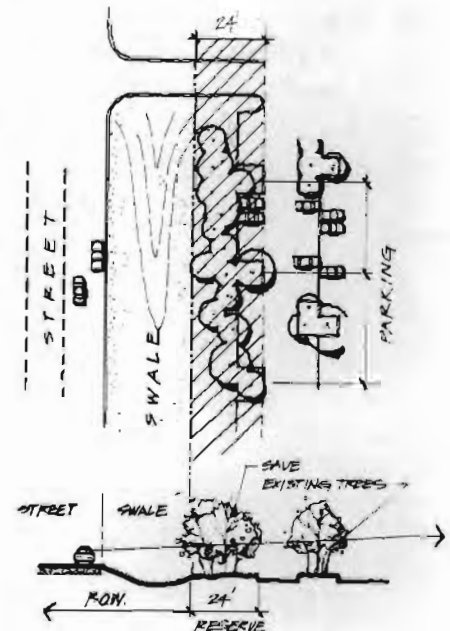


Figure 1 - Landscape Reserves

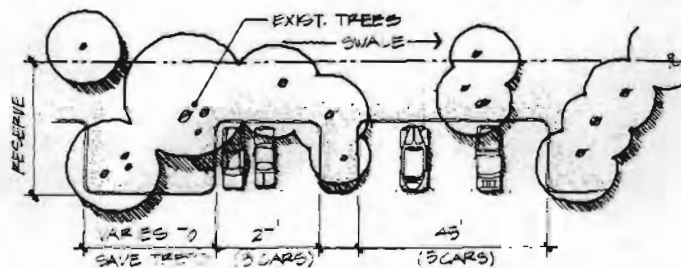


Figure 2 - Landscape Reserves

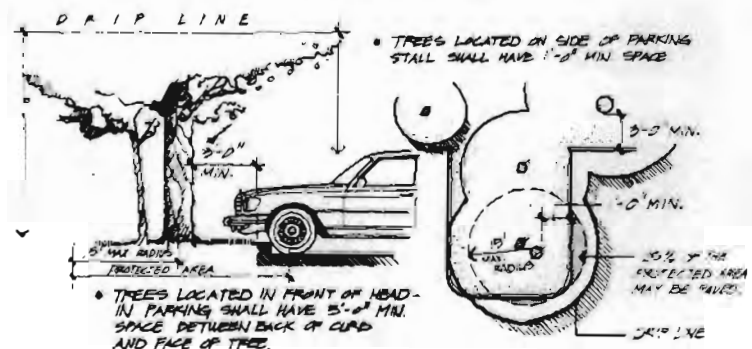


Figure 3 - Landscape Reserves



### Preservation of Existing Trees and Natural Landscape.

Preservation of existing trees and natural landscape features shall be encouraged and further strengthened. Existing trees shall be preserved within the landscape reserves and point credit toward the Landscape Ordinance will be allowed when

the existing trees are protected by barricades as outlined below and illustrated by **Figure 4**. Point credit will also be given for protecting existing trees internal to the site.

- Existing trees shall be protected by barricades during site preparation and construction to provide an area having one foot of

radius for each one inch of caliper measured 4-1/2 feet above the ground. In order to maintain credit, a minimum of seventy-five (75) percent of the protected area shall be maintained as a permeable landscape area at grades existing prior to site development. Reference **Figure 3**.

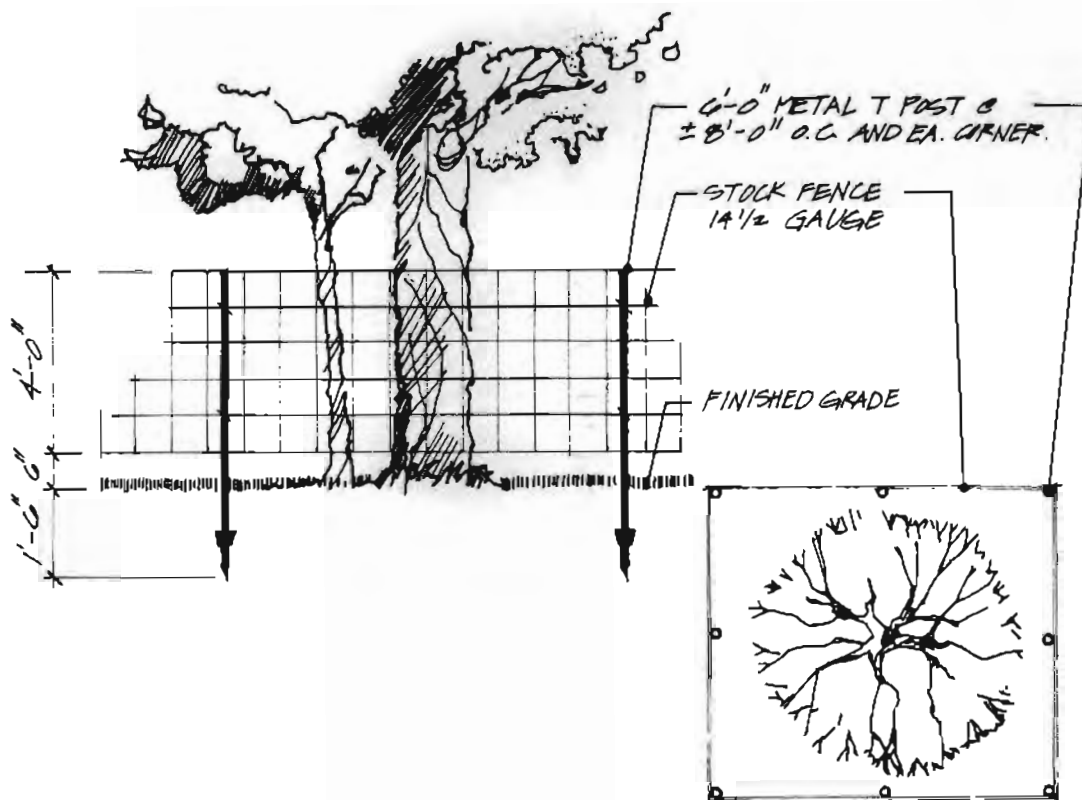


Figure 4 - Tree Protection

## Parking Screening

One of the most obvious short comings of the current landscape ordinance is its failure to address screening of parking areas from the major thoroughfares of the city. It is therefore recommended that a requirement for screening parking be instituted with the following criteria:

- A minimum three (3) foot height screen shall be placed between all parking areas and major thoroughfares. This screen can be vegetative (hedge), structural (low wall), or earthen (berm) or any combination of the three. Refer to Figures 5, 6 and 7.

- Planting screens and structural walls shall be no closer than 30" from back of adjacent parking area curbs to allow sufficient room for bumper overhang. This overhang area should be treated with a low groundcover, bark or rock mulch. Refer to Figure 5 and 6.

- Berms should be simple in shape with a more horizontal profile than vertical. Maximum slope on berms should be 1:3 or one foot vertical rise for every three feet horizontal. Refer to Figure 7.

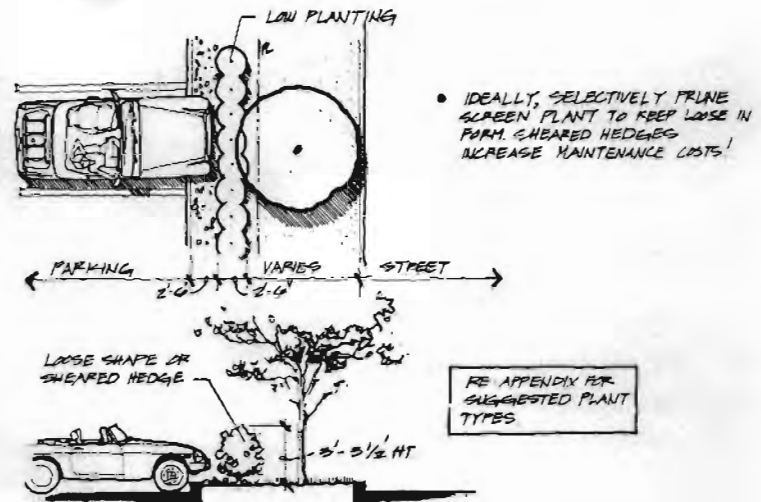


Figure 5 - Parking Screen

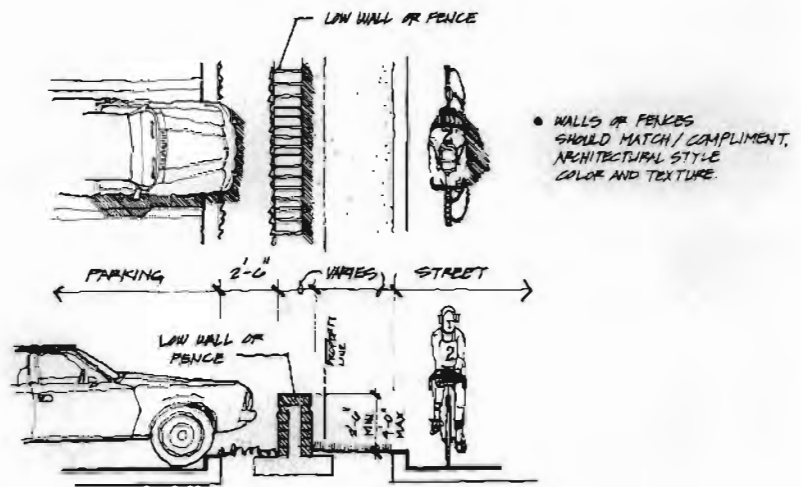


Figure 6 - Parking Screen

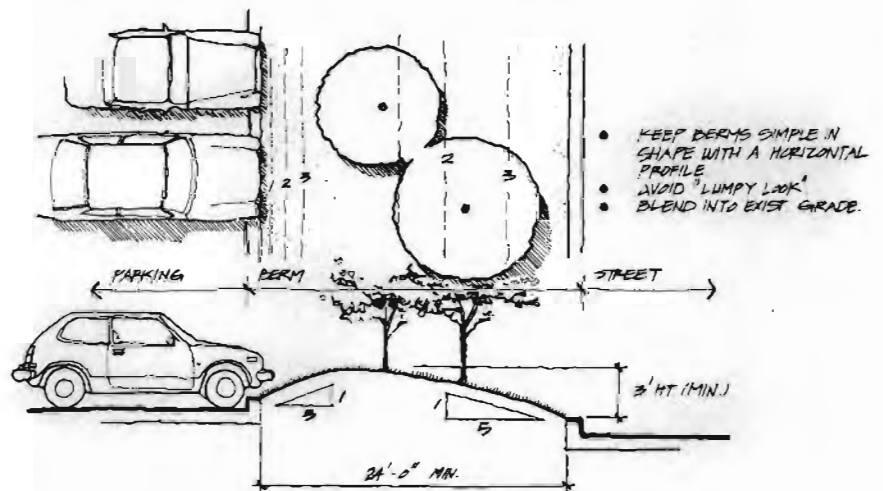


Figure 7 - Parking Screen

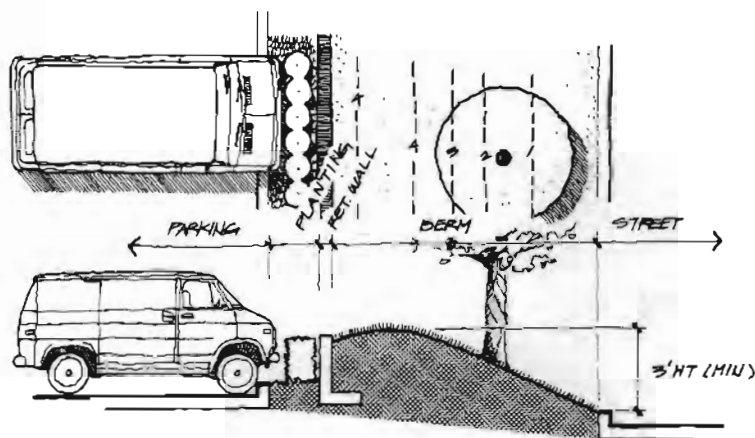


Figure 8 - Parking Screen

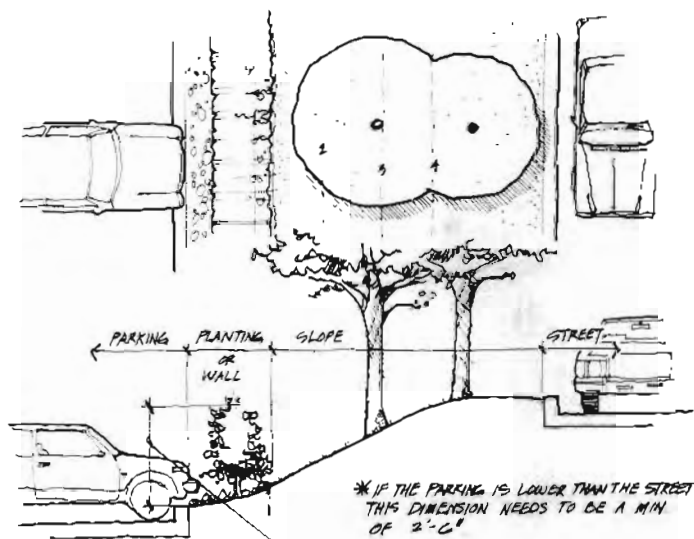


Figure 9 - Parking Screen

- THE TRIANGLE SHOULD BE MEASURED BACK FROM EDGE OF STREET, AND PROJECTED AT A 45° ANGLE TO THE ADJOINING STREET.
- THE UNOBSTRUCTED VERTICAL FIELD OF VISION SHOULD BE BETWEEN 2'-6" AND 2'-8" IN HEIGHT.

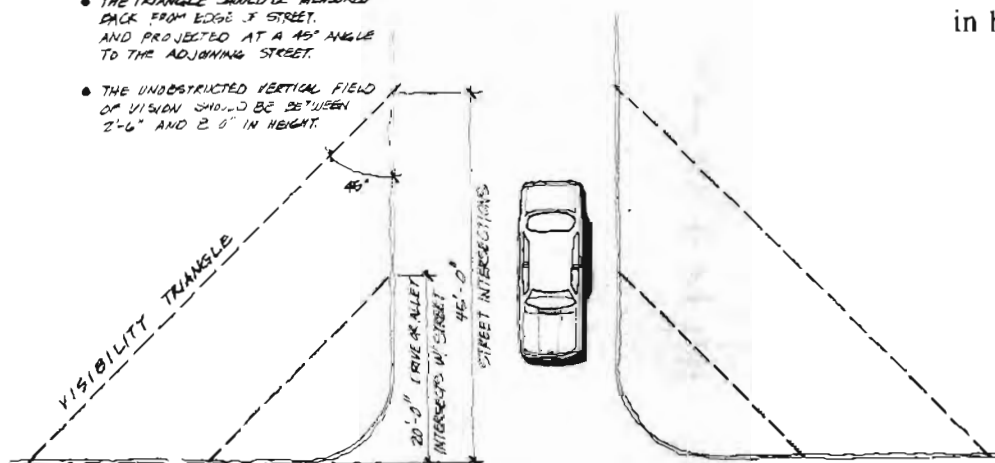


Figure 10 - Visibility Triangles

No screening of parking should obstruct visibility at street or drive intersections. To that end it is recommended that a **visibility triangle** be created that is defined as follows and is illustrated in **Figure 10**.

- In all zoning districts, that portion of a lot within an area formed by connecting together the point of intersection of adjacent street curb lines and points on each of the street curb lines 45 feet from the intersection.

- In all zoning districts, that portion of a lot within an area formed by connecting together the point of intersection of the edge of the driveway or alley and an adjacent street curb line and points on the driveway or alley edge and street curb line 20 feet from the intersection.

- Within these triangle areas as set forth above no structure, berm, plant life, or any other item shall be placed if the item is between 2-1/2 feet and 8 feet in height.

## Landscape Requirements Within Parking Areas.

In addition to the landscape screening requirements at parking area perimeters, it is recommended that the following revisions and additions to the minimum parking requirements be implemented. These revisions and additions will relate directly to the overall objectives of the Streetscape Plan.

sions and additions will relate directly to the overall objectives of the Streetscape Plan.

- Parking spaces shall be located no further than seventy-five (75) feet from a large canopy tree. This requirement should be in lieu of the requirement for "one island for every

15 spaces on interior rows".

- Large canopy trees shall be placed in circular or square raised planting areas of not less than 36 square feet. Square planters shall be turned on the diagonal to allow for vehicular parking. Refer to Figure 11.

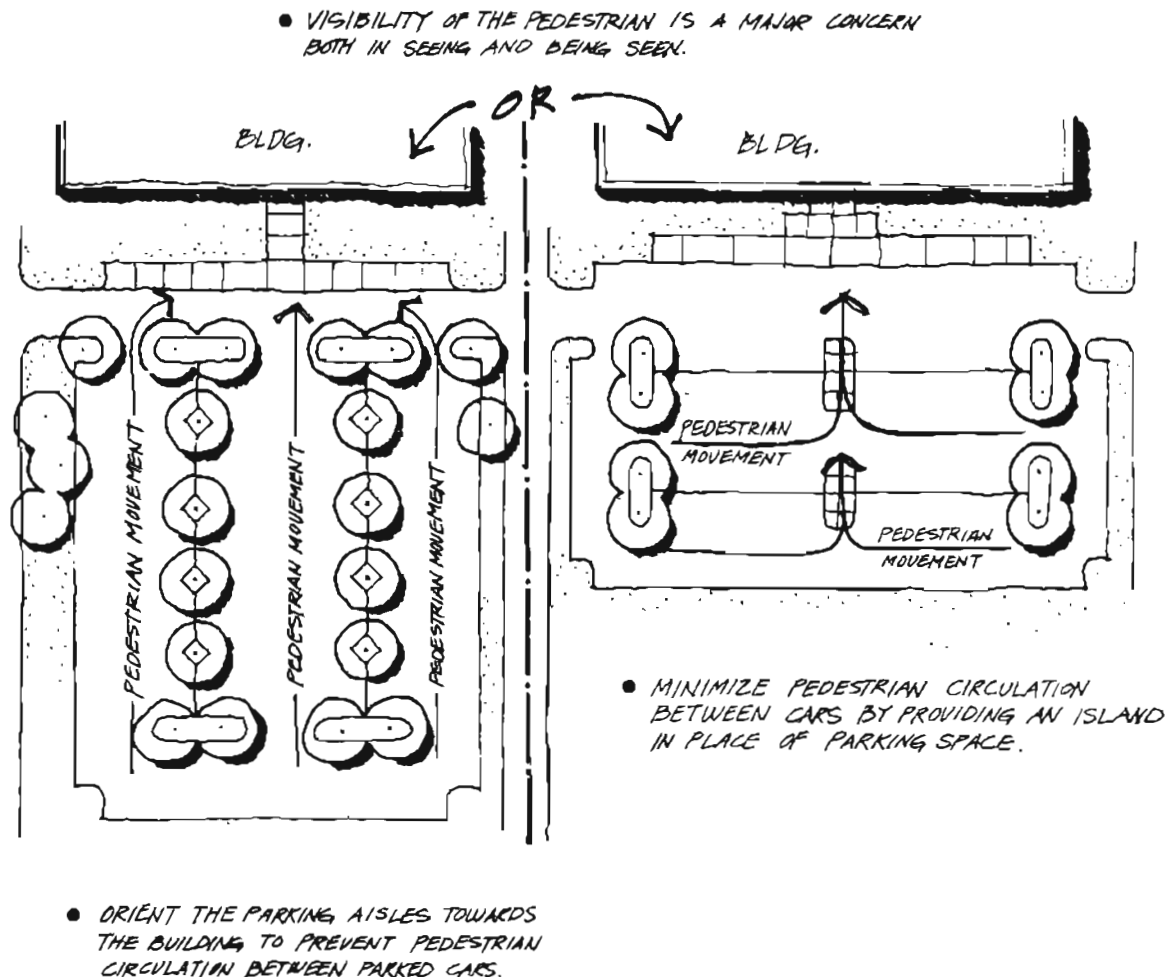


Figure 11 - Parking Orientation

## Planting Standards and Guidelines

The list of plant materials, located in the Appendix of this report, should be used in future development. The plant materials included should comprise the major components of landscape development. Since these materials serve a specific function, any variance would tend to weaken the overall design intent.

The plant materials suggested are only those which are considered native or which have proven satisfactory for the College Station area. Careful consideration has been given to selection of plant materials which are considered easy to maintain, generally free of insects and disease, and relatively hardy for this area. Plant materials shown in the list should also be considered for private development, but should not be viewed as the only plants acceptable for use.

### General Planting Procedures and Guidelines

As was explained in the previous section, the College Station area is made up of variable topsoil and subsoil conditions, and detailed soil requirements will vary from area to area. The topsoil generally is made up of heavy clay. Considerable conditioning is needed to promote adequate

plant growth and lower long-range maintenance costs. Subsoil drainage, especially in the areas of deep cuts or where heavy equipment is used, presents serious problems to tree plantings. Clay soil conditions tend to hold water in the tree pits and additional drainage provisions should be incorporated wherever these conditions prevail. Thorough analysis must be given these problems, and measures must be taken to ensure adequate porosity of all subsoil around planting areas.

Trees will grow in the existing soil, but in order to promote quick recovery from the transplanting process, it should be

required that backfill containing five (5) parts sandy loam and one (1) part peat be placed around the balls of all new trees. Large shade trees should have pits two (2) feet greater in diameter than the size of the ball. The sides and bottom of the pits should be scarified to increase porosity and to help root penetration into existing soil. Care should be taken to ensure planting trees at proper depth and to prevent settling of the soil. All trees should be set so that the top of the ball is even with the finish grade. (Refer to **Figure 12** for example.) For those on sloping areas, the top of the ball should be even with the downhill side.

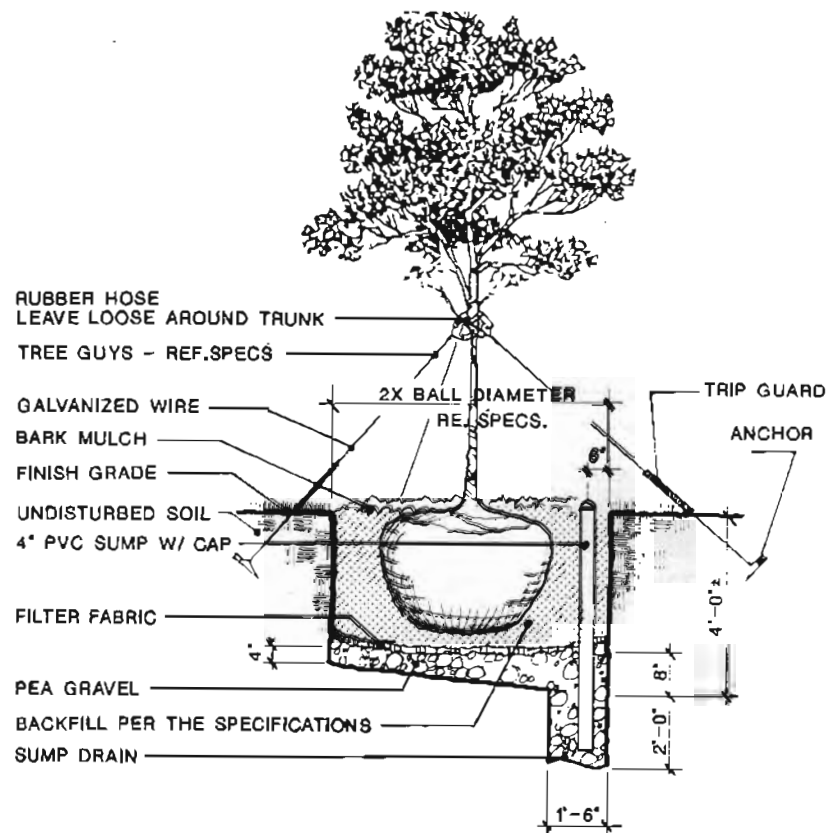


Figure 12 - Tree Planting

Shrubs and groundcover require similar bed preparation. Bed areas require a minimum excavation depth of six (6) inches. The excavated soil should be removed from the site and the beds backfilled with a thoroughly mixed and prepared soil containing one (1) part sandy loam, one (1) part peat moss, one (1) part sharp sand. Four (4) pounds of commercial fertilizer should be added for each 1000 square feet of bed area. Shrub and groundcover areas which occur on compacted fill should have twelve (12) inches of prepared soil. Bed areas which occur on slopes greater than 3:1 should be covered with jute matting to prevent erosion until the plants are established.

Once all bed preparation has been accomplished, the plants should be spaced according to specifications and set with top of balls even with the top of the bed. Soil should then be compacted carefully around each plant and well watered to eliminate air pockets around the roots.

Lawn areas should have a minimum of four (4) inches of existing topsoil over regraded subsoil. Drainage is vital and it is often expedient to cultivate sand or sandy loam into the upper four (4) inches of soil to permit fine grading. All lawn areas should be fine graded to establish a smooth, even grade suitable for a fine lawn. Any undulations that cannot be raked

out should be topdressed with sandy loam. Stones one (1) inch or larger, sticks, roots or other debris exposed during this operation should be removed from the site. Areas showing weed growth shall be sprayed with approved herbicides, mowed and the clippings removed from lawn areas prior to final grading.

Lawn areas with solid sod application should have sod placed so edges are touching, topdressed to fill voids with sharp sand and rolled to eliminate undulations. At the time of seeding, the soil should be moist, but not muddy, and the wind velocity should not exceed ten (10) miles per hour. Add water, if required, to moisten soil. Scarify the ground with a rake, as necessary, immediately before sowing seed to provide a smooth, even grade and friable seed bed. Hydromulch seed evenly at the rate of eighty-six (86) pounds of Bermuda Grass per acre in irrigated areas, or eighty-six (86) pounds of Buffalo Grass per acre in non-irrigated areas with wood cellulose fiber at the rate of fifty (50) pounds per 1000 square feet. Add tackifier to mix for 4:1 slopes or greater at the rate of one (1) pound per bag of mulch. Lawn areas which occur on slopes exceeding 3:1 gradient shall be strip or solid sodded. Drainage swales or channels should be protected with solid sod and/or erosion control matting as required.

During construction, temporary measures should be taken to prevent erosion and sediment build-up of designed drainage ways.

### **Irrigation Guidelines**

It is recommended that a fully automatic irrigation system be mandatory to support new landscaping at required parking area screens and street tree planting. The balance of the landscaped areas should be within 100 feet of a hose bib or quick coupler valve, however it would be highly desirable for all landscaped areas to be watered by a fully automatic system.

### **Open Drainageways and Culverts**

Because a large portion of open drainageways exist on State Rights-of-Way it will be difficult to quickly incorporate the following recommendations in these areas. However, the City should quickly move to incorporate the following guidelines into the appropriate sections of the development codes.

- Drainageway Cross-section Drainageways with grass slopes shall be graded with 1:3 maximum slopes with the flow



line of the drainageway stabilized with solid sod or jute mesh. Refer to Figure 14.

- The City should take steps to reduce the visual impact of culverts by requiring that drain pipe beneath streets extend far enough beyond the streets to allow headwall construction that is of a lower profile and less visually obtrusive. Refer to Figure 13.

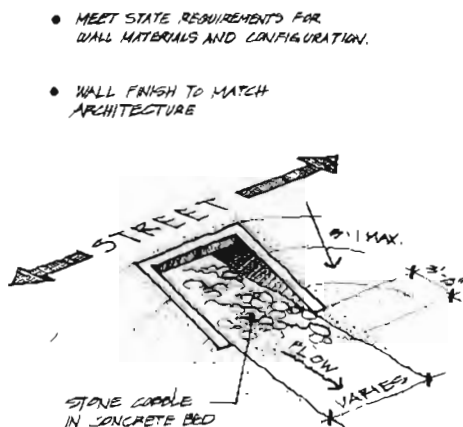


Figure 13 - Culverts

- Whenever possible, side-walls of drainage structures should match grade of adjacent sideslopes to minimize the visual impact of the structures. Refer to Figures 13 and 15.

In instances where grade separation from the street or adjacent sidewalk warrants guard-rails shall be provided as illustrated by Figure 16.

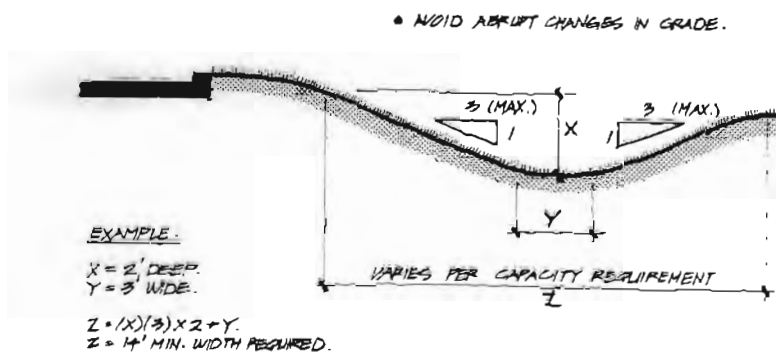


Figure 14 - Drainageway Criteria

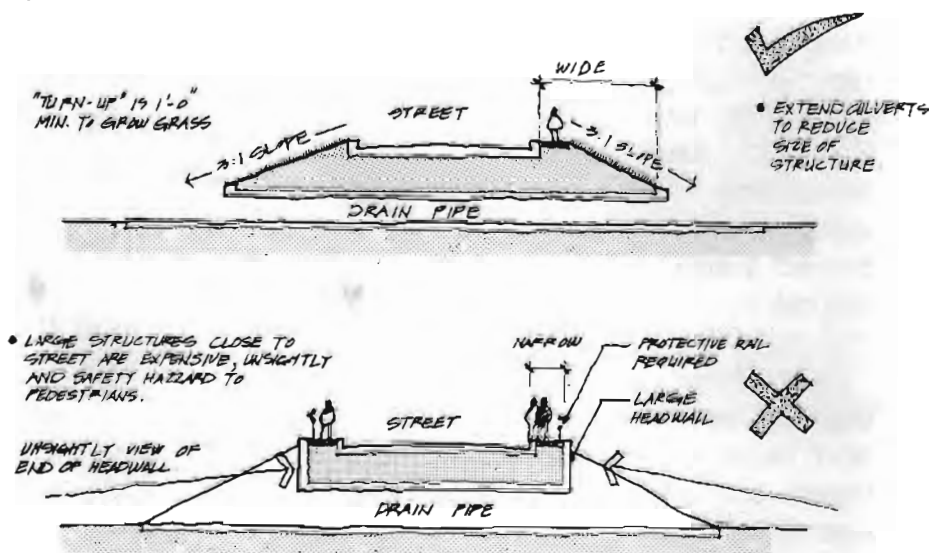


Figure 15 - Culvert Recommendations

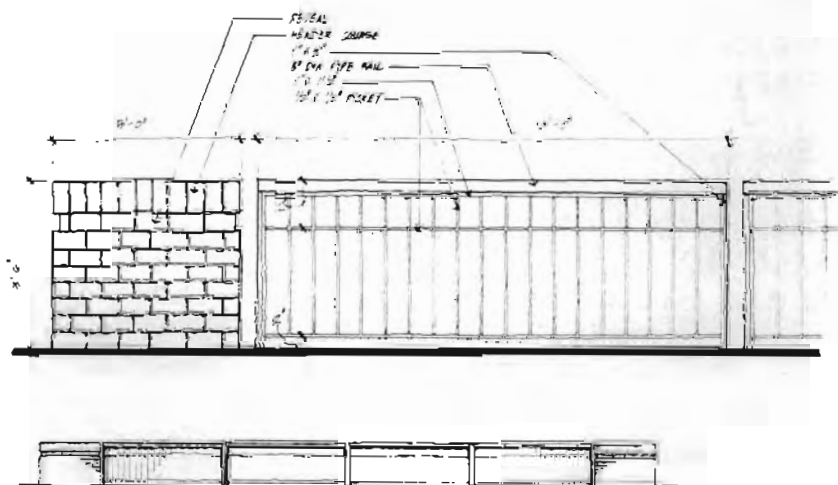


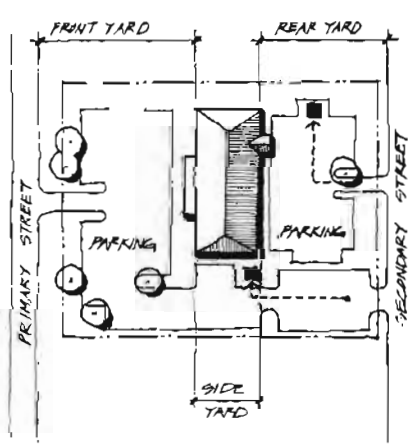
Figure 16 - Guardrail Standard

## Dumpster Placement and Design Guidelines

Dumpster placement is a very crucial aspect of the streetscape plan. This importance should be recognized early in the planning stage of a project and Project Review Committee (PRC) review should stress that developments give appropriate locations serious consideration.

In order to reduce visual clutter and unsightly conditions concerning trash storage and pick-up, the following guidelines for dumpster placement and screening on private property should be adopted.

- **Placement** - Dumpsters shall be located in the rear yard of commercial establishments out of view of major thoroughfare rights-of-way. Where site constraints and access make



- LOCATE DUMPSTER ENCLOSURES IN REAR YARD OUT OF VIEW FROM PRIMARY STREETS.

Figure 17  
Dumpster Placement

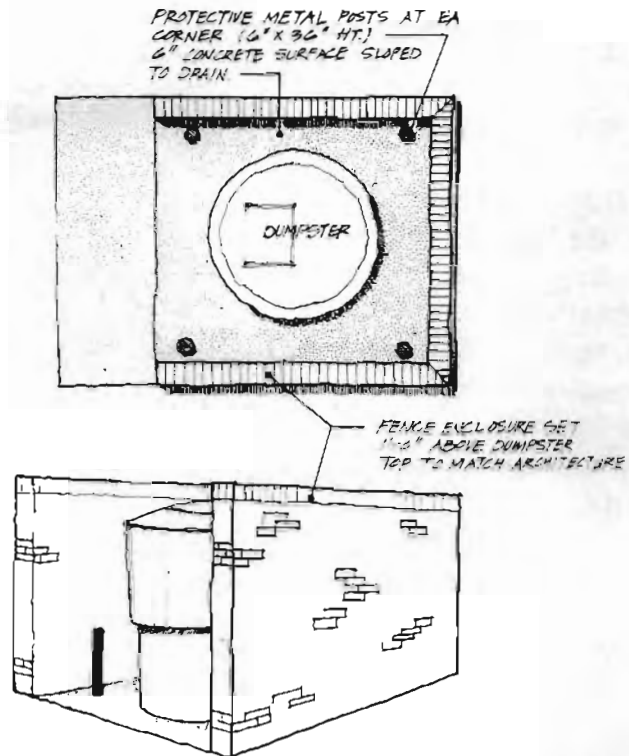


Figure 18 - Dumpster Enclosure

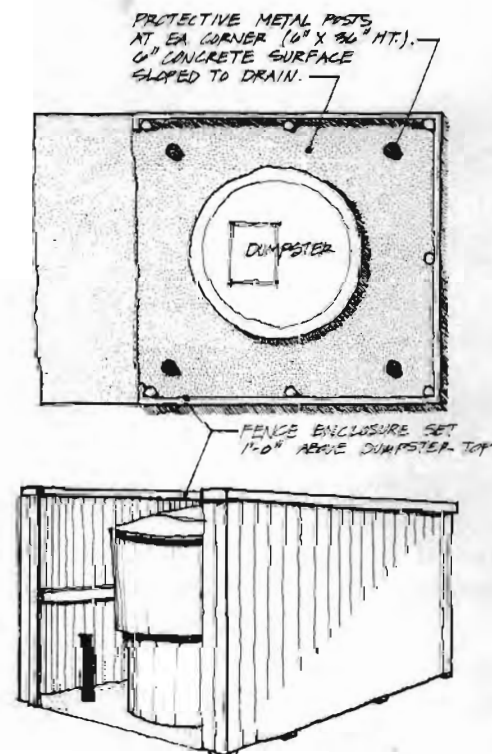


Figure 19 - Dumpster Enclosure

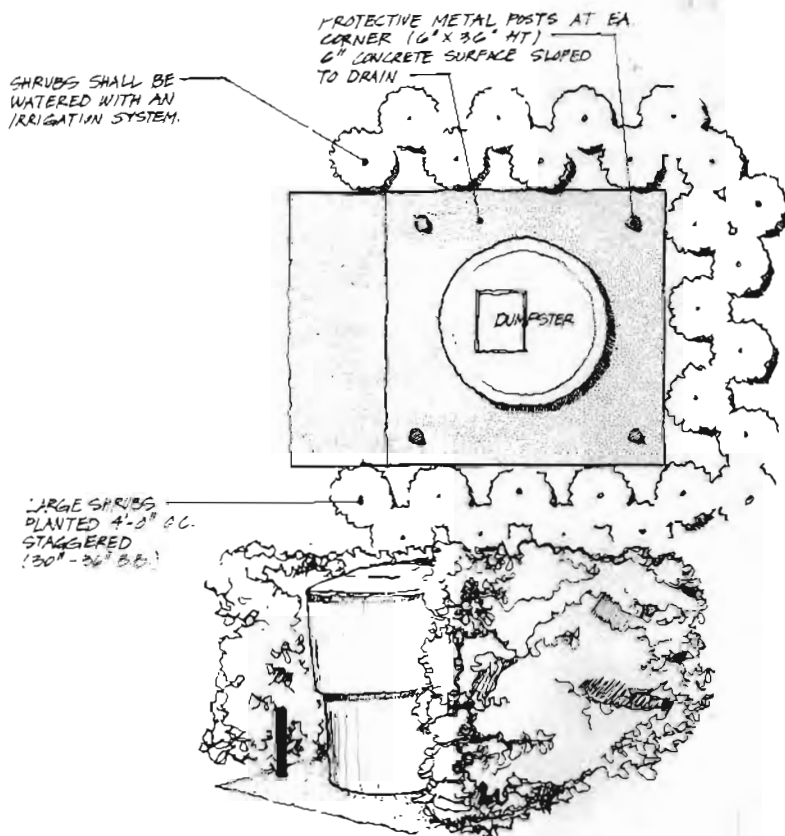


Figure 20 - Dumpster Enclosure

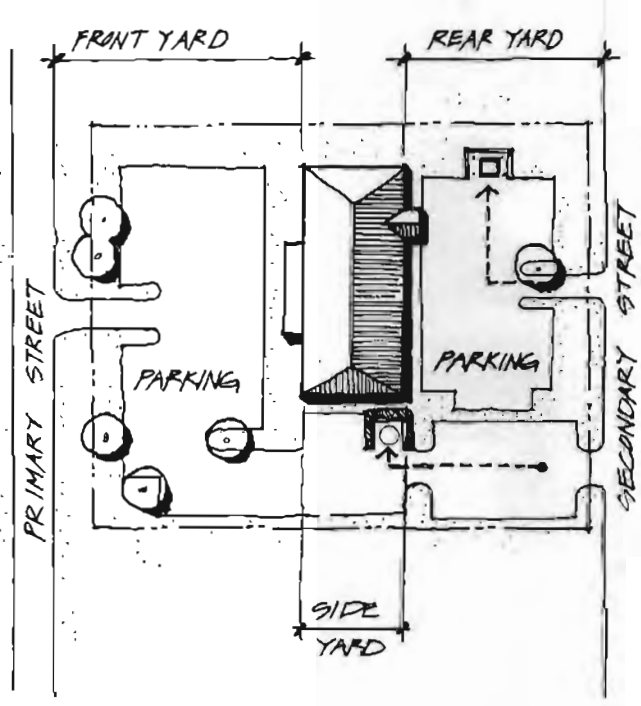


Figure 21 - Opening Orientation

rear yard locations unfeasible, dumpster may be placed in unobtrusive locations in side yards. In no case shall a dumpster be placed adjacent to the property line or in a front yard. Refer to **Figure 17**. Openings into dumpster enclosures shall be positioned so that view of the containers from streets and rights-of-way is eliminated in all cases. Refer to **Figure 21**.

- **Paving Pads** - Dumpsters shall be placed on 6" thick reinforced concrete pads.

- **Screening** - Dumpsters located in rear yards and out of view of major and minor thoroughfares may be screened with plant material. Dumpsters located in sideyards must be screened with a structural screen of a wood or brick enclosure.

## Design Standards

Design element guidelines have been developed for the following major components of the streetscape system:

- *Lighting*
- *Furniture*
- *Signage*
- *Traffic Signalization*
- *Surface Elements*  
(Sidewalks, Crosswalks, Intersections)
- *Special Elements*

The following pages will describe each element, the concepts which directed design and the criteria for placement.

### Lighting

Lighting standards and guidelines have been developed to achieve three major objectives:

- Consistency
  - Fixture Style in R.O.W.
  - Lamping
- Flexibility
- Control of light spillage

There is a strong need to provide a consistent level of lighting along the major thoroughfares of the city. To that end it is recommended that a concealed source fixture be used equivalent to KIM Lightings CCL Luminaire. Lamping

recommendations are as follows:

- *Special Streets (Texas and University) - Metal Halide*
- *All Other Streets - High Pressure Sodium*

The City should prohibit the use of any other type of lamp except metal halide, mercury vapor, or high pressure sodium within the city on both public and private developments.

It is recommended that the luminaire have dark gray finish. These fixtures would be mounted on 35' height dark gray anodized aluminum poles. Other manufacturers supplying equivalent fixtures to KIM are EMCO - "Infiniround" and Gardco "Form 10CA".

Roadways are classified by the Illuminating Engineering Society of North America as freeway, expressway, major, collector, and local. Based on that classification fixtures should be placed to achieve the following footcandle levels and uniformity ratios:

	fc	uniformity
Major	1.2	3:1
Collector	.8	4:1
Local	.6	6:1

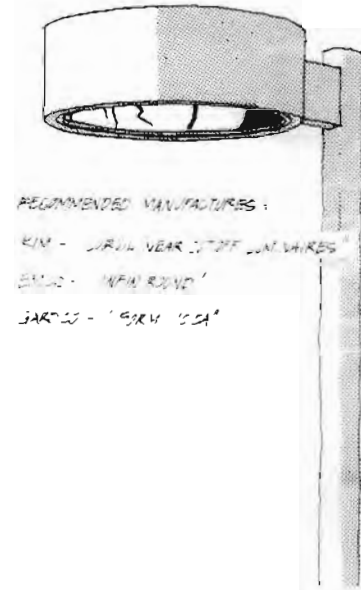


Figure 22 - Light Standard

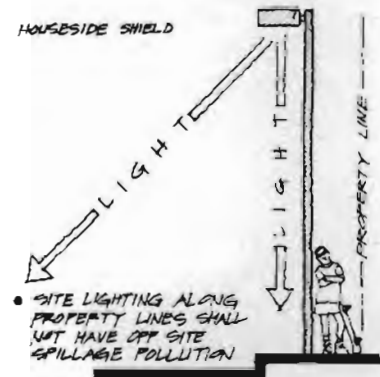


Figure 23 - Lighting Recommendations

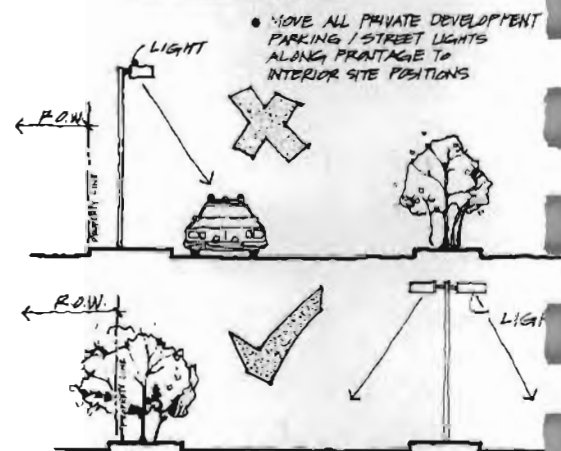


Figure 24 - Lighting Recommendations

In order to minimize hardware located at the R.O.W. lines it is recommended that private development parking area lights be placed internal to the site and away from the R.O.W. Refer to **Figures 22-24** for lighting recommendations. To promote flexibility of "character" lighting within special developments an alternative fixture can be utilized with prior City approval. This fixture, equivalent to Moldcast Washington Contra/Cline is a traditional type standard and luminaire, more pedestrian in scape, and suitable for subdivisions and other developments where a special fixture is desired.

Lighting in public R.O.W. as well as private developments should be required where lighted parking areas and roadways about residential areas.

### Site Furniture

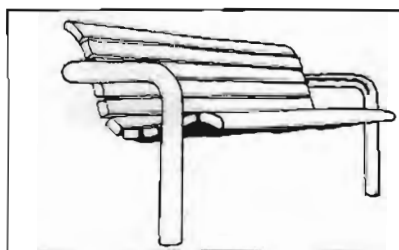
The purpose of providing furnishings in the street corridors is to permit functions to occur which do not presently exist. The furnishings should be of a quality that enhances but does not compete with similar items in private developments. The form and scale of the furnishings have been selected in an attempt to relate to the pedestrian when appropriate yet

be in scale when viewed from the automobile. The forms of the elements are purposely simple to achieve a timelessness and so that each is aesthetically pleasing independently as well as in groups.

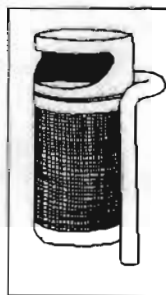
- **Benches** Benches recommended are a stylized traditional form constructed of painted metal to match light fixtures and anchored in place by concrete footings. Manufacturer is

Landscape Forms, Kalamazoo, MI. Refer to **Figure 25**.

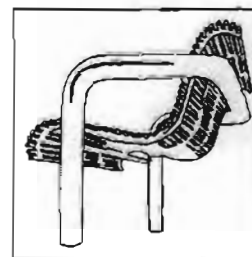
- **Litter Containers** Litter containers are of the same family and form as the benches. These units should be placed adjacent to seating areas and other areas where pedestrians tend to congregate. They are durable units, conceal the litter within, and permit ease of litter removal. Manufacturer is Landscape Forms, Kalamazoo, MI. Refer to **Figure 25**.



A PETOSKEY GROUP TRASH RECEPTACLE FROM LANDSCAPE FORMS - KALAMAZOO, MICHIGAN. STYLE XD-E. EMBEDDED SUPPORT. MODEL NO. PK 3005-BS-72, XD-E, WITH REDWOOD SEAT PANEL. SUPPORT TO BE PAINTED WARM-GRAY #1.



A 6' PETOSKEY GROUP BENCH FROM LANDSCAPE FORMS - KALAMAZOO, MICHIGAN. STYLE XD-E. EMBEDDED SUPPORT. MODEL NO. PK 3005-BS-72, XD-E, WITH REDWOOD SEAT PANEL. SUPPORT TO BE PAINTED WARM-GRAY #1.



A 6' PETOSKEY GROUP BENCH FROM LANDSCAPE FORMS - KALAMAZOO, MICHIGAN. STYLE XD-E. EMBEDDED SUPPORT. MODEL NO. PK 3005-BS-72, XD-E, WITH STEEL RWD SEAT PANEL, PAINTED WARM-GRAY #1.

Figure 25 - Benches and Litter Container

- Newspaper Containers

Containers for the sale of newspapers should be standardized and of a contemporary form compatible with the other elements of the streetscape. These units should be placed adjacent to structures when it is necessary that they occur in public R.O.W. They should be limited to no more than four units at one location and be painted gray to match light standards and other site furniture.

- THEY SHOULD BE PLACED ADJACENT TO STRUCTURES
- LIMIT THE NUMBER OF UNITS AT ANY ONE LOCATION TO FOUR
- THEY SHOULD BE PAINTED TO MATCH SIGN POLES AND TRAFFIC SIGNALS

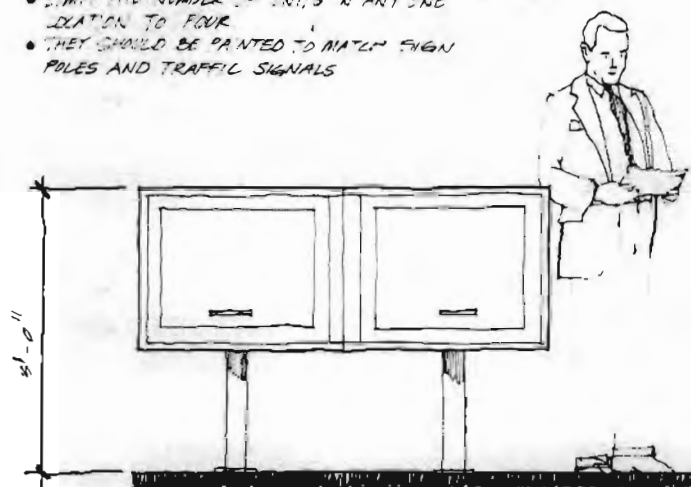


Figure 26 - Newspaper Container

- Mailboxes

Residential mailboxes located adjacent to street curbs shall be installed on metal posts painted gray to match other street furniture. Existing sidewalks to receive mailboxes shall be cored and the mailbox support set in concrete. New walks shall be sleeved to allow for future mailbox installation.

In multifamily zones or other zones of land use where it might be desirable to cluster mailboxes units similar to Figure 27 should be used.

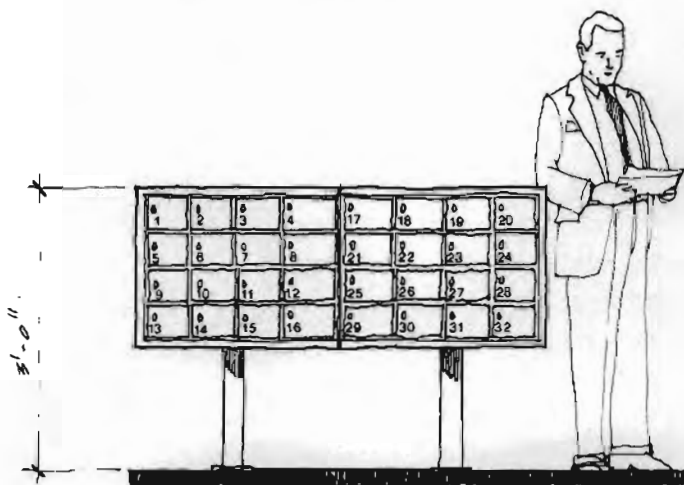


Figure 27 - Cluster Mailboxes

- INSTALL SLEEVES FOR PRIVATE MAIL BOX POST PRIOR TO POURING SIDEWALK.

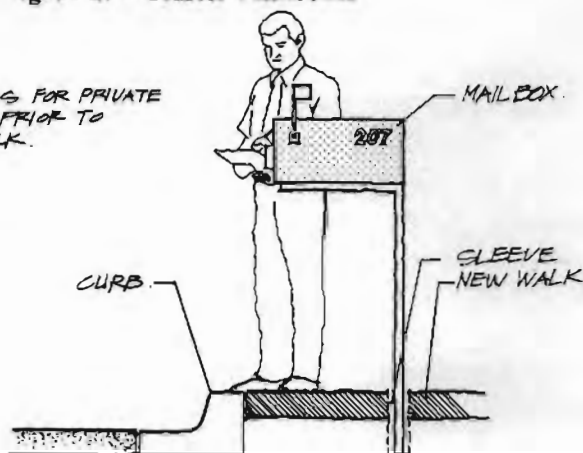


Figure 28 - Mailbox at Sidewalk



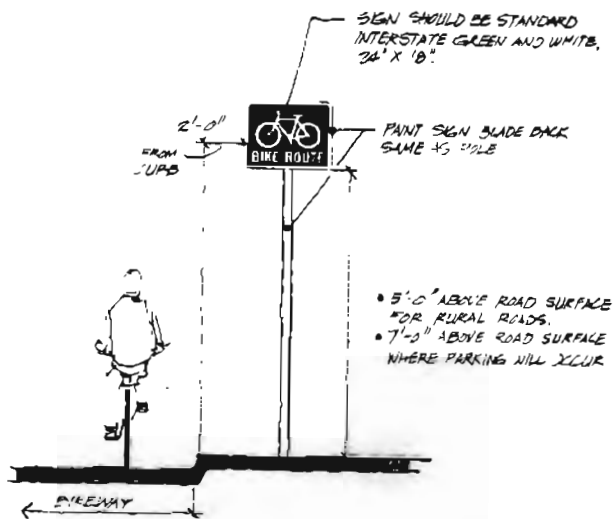


Figure 29 - Signage

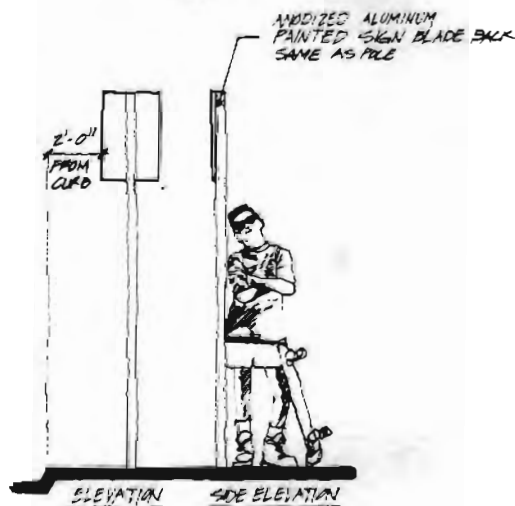


Figure 30 - Signage

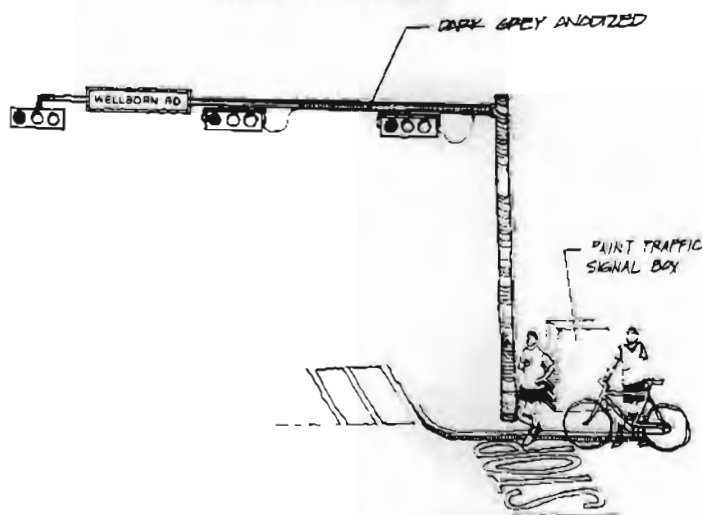


Figure 31 - Traffic Signalization

**Signage.** Because of the proliferation of signage necessary to maintain a semblance of control it is desirable to minimize these signs within the street environment. Signs that are deemed necessary should be mounted and installed consistently throughout the City. Signs shall be mounted on gray anodized aluminum poles 2'-0" from back of curb, 5 feet above road surface for rural roads and 7 feet above road surface where parking will occur. Back of sign blade shall be painted to match poles. Refer to Figures 29 and 30.

In an effort to improve orientation within the city as to where major intersections occur it is recommended that:

- Intersections of major arterials be signed by the use of sign blades located on traffic signal crossarms.
- Approaches to major intersections be announced by appropriate signage located 500 - 750 feet from the intersection.

### *Traffic Signalization*

In order to achieve maximum flexibility of required traffic signalization standards, the City should utilize a signal structure composed of mast arms, extensions for luminaries, etc. that are constructed of standard metal or tube steel components assembled in creative ways to

satisfy unique requirements at specific intersections. **Figures 31, 32, 33, and 34** illustrate potential flexibility of such a system. This configuration is recommended over other modular designs because of the components are more economical to replace in the event of damage and the design is more appropriate in less densely developed corridors such as those in College Station.

In order to maintain a consistency of color in all structural elements within the streetscape, it is recommended that traffic signal poles and mast arms be of gray anodized aluminum or a sealed, powder-coat finish of a comparable color. Signal boxes should be painted to match poles. Signal boxes should be painted to match poles.

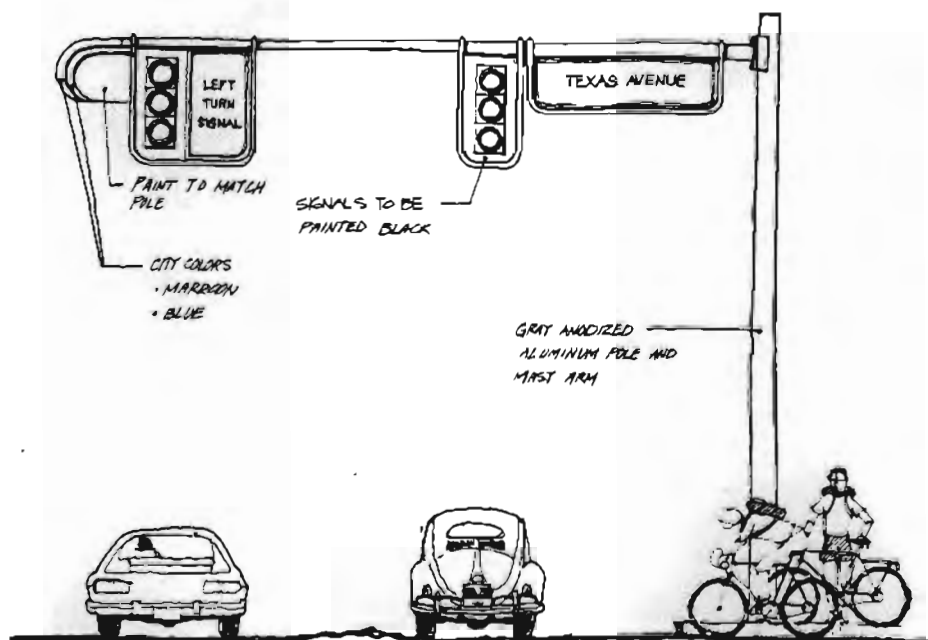


Figure 32 - Traffic Signalization

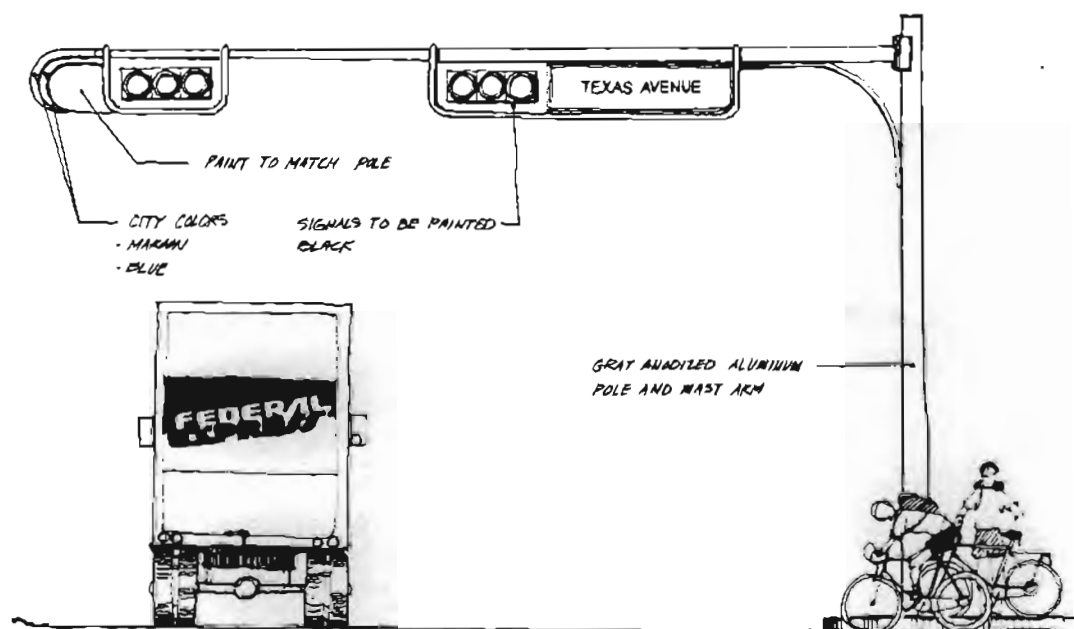


Figure 33 - Traffic Signalization

**Surface Elements.** The visibility of detail in the surface elements will permit a strong sense of scale relationship. Materials chosen are durable and proven. The designs in the major intersections (refer to the prototypical plans section of this report) will provide a strong identifying element that differentiates the city's street hierarchy.

**Sidewalks.** In an effort to foster safer pedestrian movement it is recommended that four inch thick reinforced concrete sidewalks be required along all streets in the city.

On **residential streets** sidewalks should be located against the curb on both sides of the street and have a minimum width of six feet.

On **collectors and arterials** sidewalks should be located on both sides of the street and be set back from the curb a minimum of six feet to provide an extra measure of pedestrian safety adjacent to these heavier travelled thoroughfares. Sidewalk width should be a minimum of four feet. Refer to **Figure 34**. Along all streets sidewalk width should be reflective of the anticipated

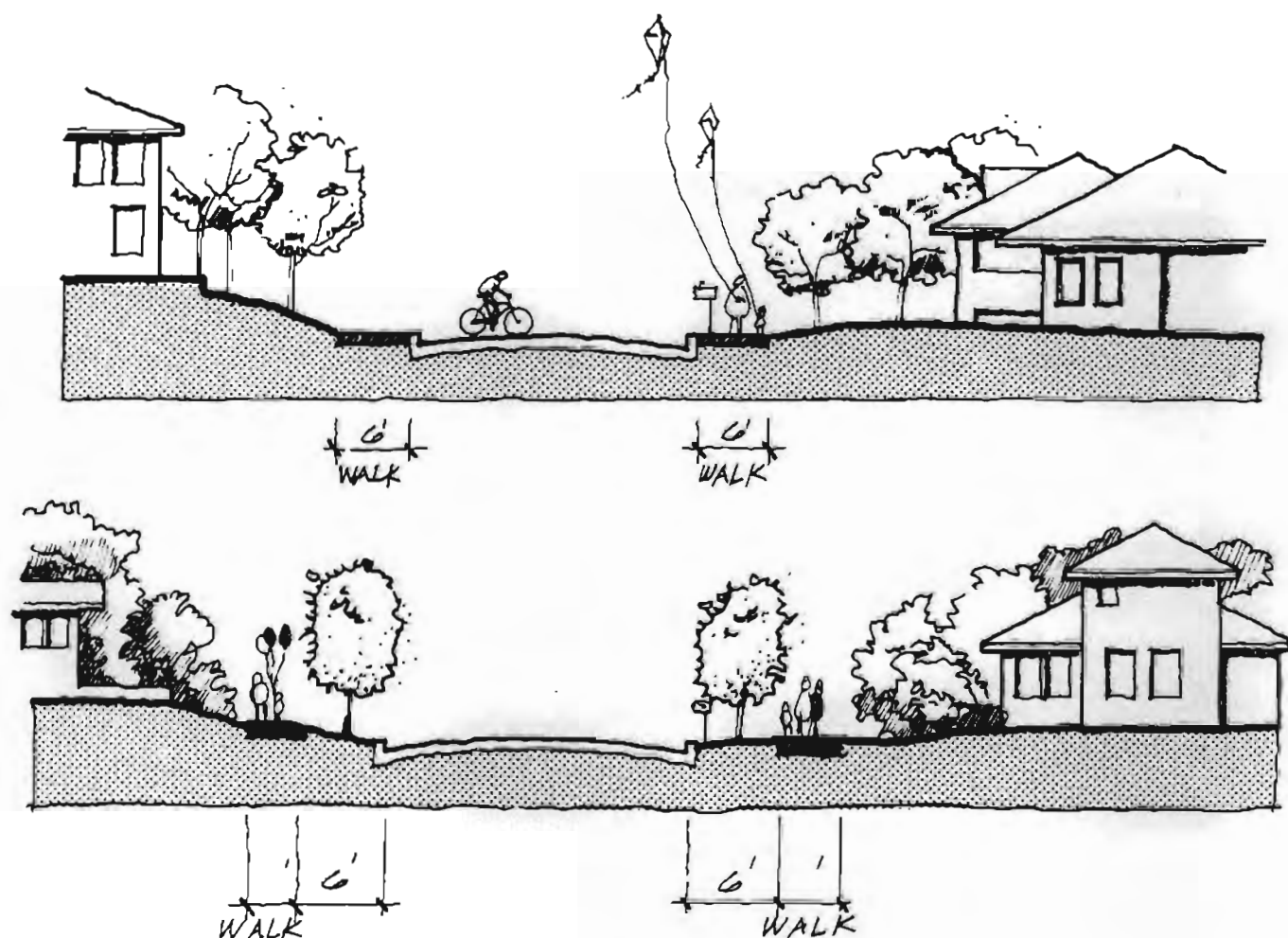


Figure 34 - Sidewalk Locations and Widths

pedestrian utilization. Where collectors or arterials approach schools or libraries it would be appropriate to increase the sidewalk width to handle the increased pedestrian traffic.

It is recommended that sidewalks throughout the city be finished as detailed on **Figure 35**. This will provide a suitable level of detail and interest that is appropriate for pedestrian usage.

Crosswalks. Crosswalks about the city should be marked on pavement with reflective pavement paint. **Figure 36** indicates a prototypical marking recommendation at a bikelane and **Figure 59** on page 90 illustrates crosswalk design at major intersections. While it is the intent to utilize pavers and enhanced paving only at special intersections such as Texas/University, Texas/George Bush, etc., it may be appropriate to provide crosswalks with pavers at streets in the Northgate district. Pavers at these crosswalks should be of a contrasting color to the adjacent street surfaces.

Special Intersections. Major and special intersections shall be differentiated from standard intersections through the use of concrete pavers, sandblasted concrete finishes, troweled bandings, etc. Refer to Descriptions of Major Intersections for details.

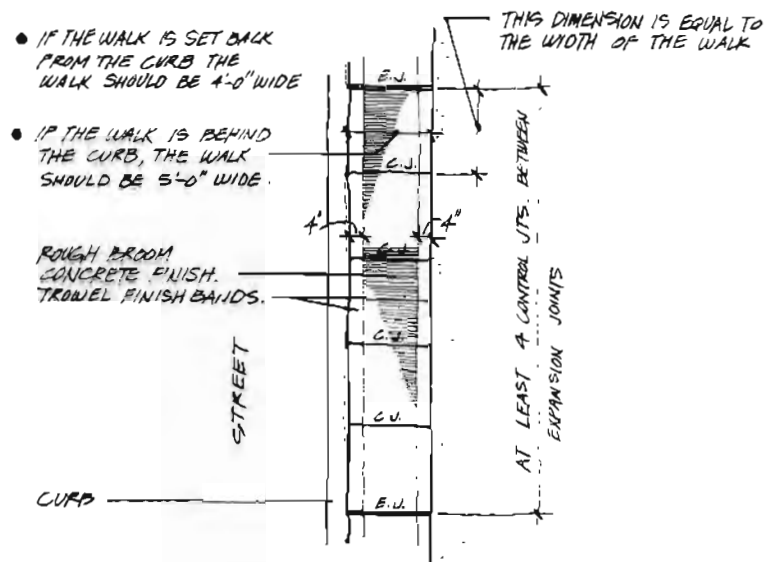


Figure 35 - Sidewalk Finishing

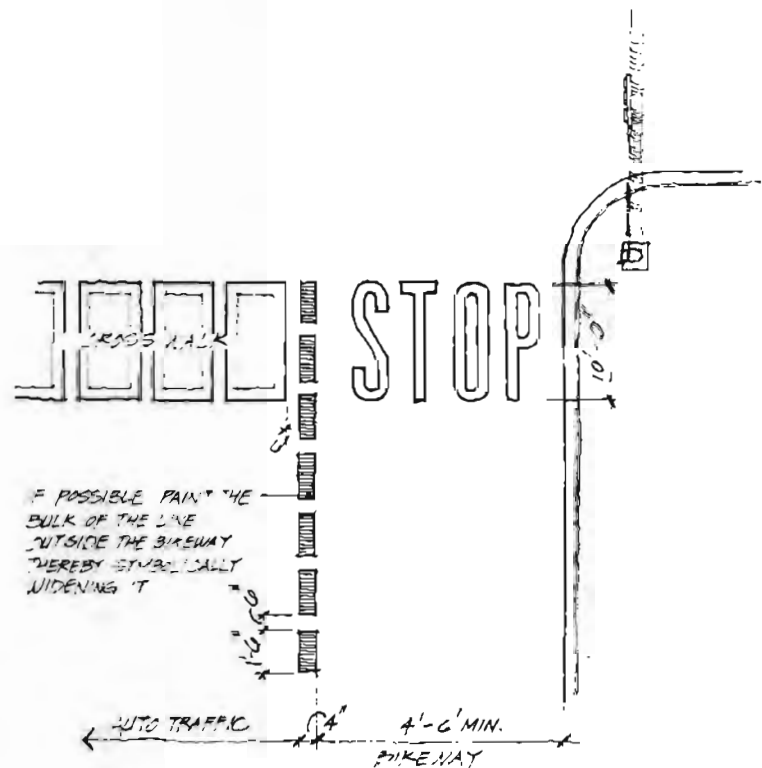
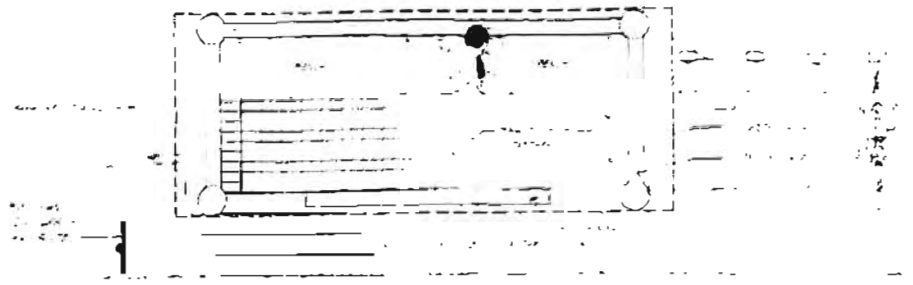


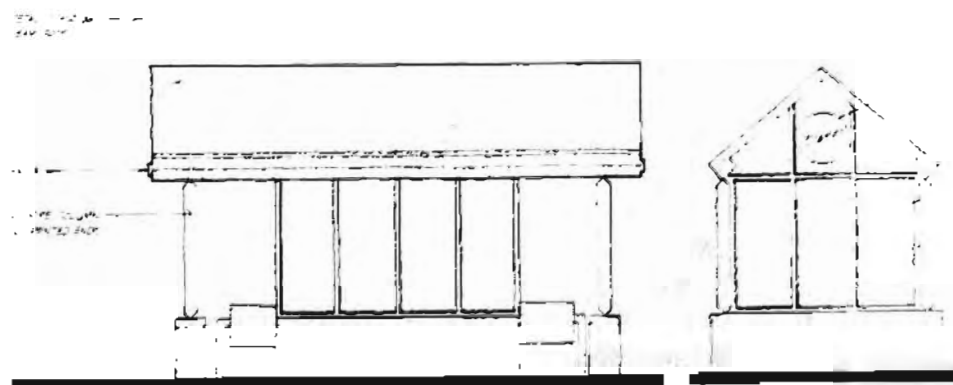
Figure 36 - Crosswalks

**Special Elements.** Certain special elements in the street corridor, such as bus stops, serve a specific service function. There are also elements present in the street corridors which contribute more to an aesthetic function. These are the elements that bring sparkle and color. Elements to be described in this section are bus shelters, seasonal lighting/decoration, banners, and flags and flagpoles.

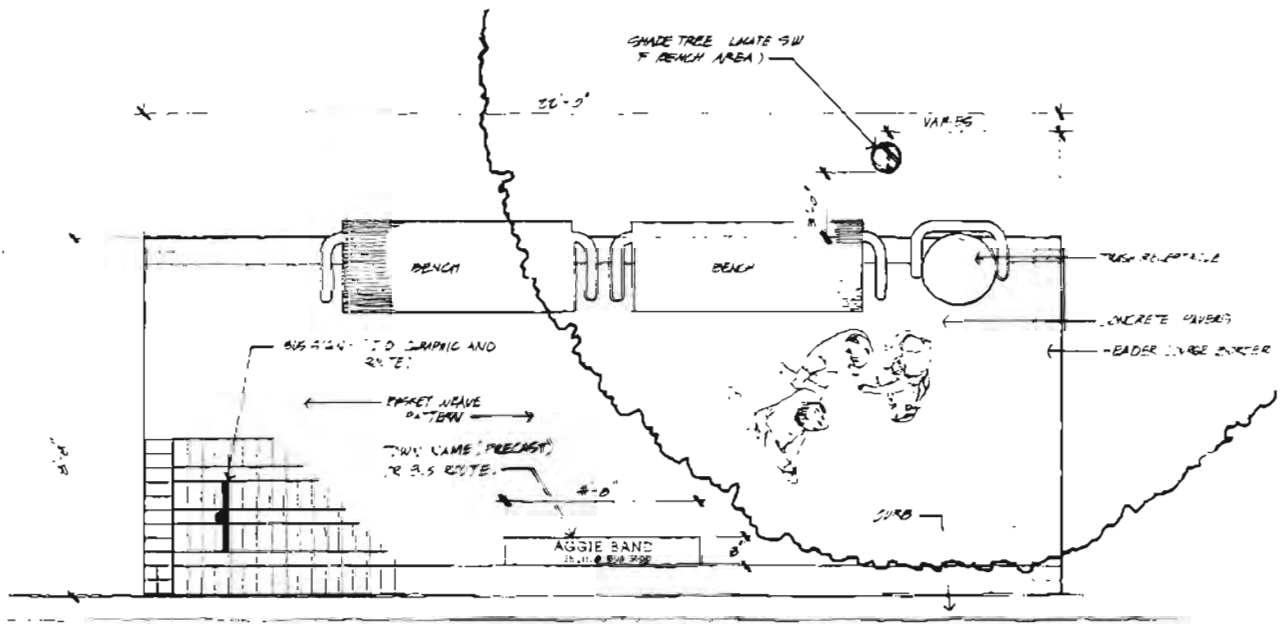
**Bus Shelters.** City staff has selected a standard bus shelter unit for placement at appropriate points about the city. The area adjacent to the shelter should be developed with special pavers, trash receptacles, benches, and bicycle racks as indicated on **Figure 37**.



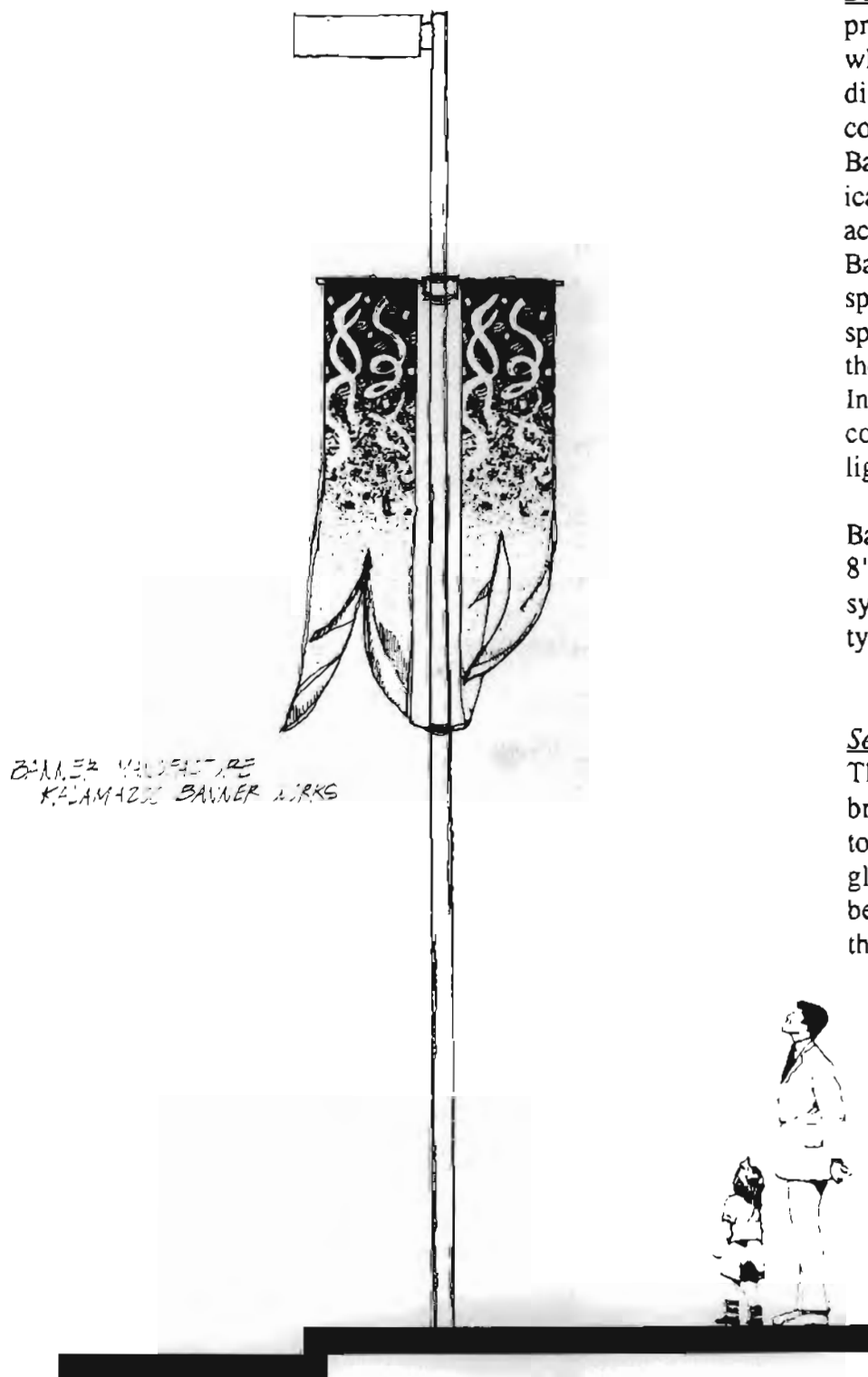
**Figure 35 - Bus Shelter Prototypical Plan**



**Figure 38 - Bus Shelter Prototypical Elevations**



**Figure 39 - Bus Stop Prototypical Plan**



**Banners.** This element has proven to be very successful when used in special areas or districts to add movement and color to the street environment. Banners can be changed periodically to relate to seasonal activities and special events. Banners would be placed with special brackets mounted on special standards as shown on the Eastgate Prototypical Plan. In appropriate areas banners could also be mounted on street light standards.

Banners should be 4'-4" by 14'-8" long and manufactured of synthetic materials for durability.

**Seasonal Lighting/Decorations.** This element is recommended to bring additional seasonal spirit to the city. Provisions for glitter lighting in the trees will be provided by duplex outlets at the base of the trees.

Figure 40 - Banners



# BIKEWAY PLAN

## Introduction

The Bryan-College Station area has a high amount of bicycle traffic in comparison to other similar sized cities due to the large number of TAMU students and faculty who find bicycling as a feasible transportation alternative. As a result, the City of College Station has initiated a program to provide for an organized system of bikeway facilities.

Because of the close nature of the Streetscape Plan and the bicycle system this study will not only recommend design guidelines for the various paths, lanes, and routes that traverse the city but evaluate the existing routing and make recommendations for specific improvements to future routing.

## Definitions

A bikeway is a trail, path, part of a highway shoulder, sidewalk, or any other means specifically marked and assigned for bicycle use. Bikeway facilities are further classified as bike paths, lanes, and routes.

**Bike Path** - a facility completely separate from auto traffic and within an independent right-of-way or within the right-of-way of another facility.

**Bike Lane** - a facility where

part of the roadway or shoulder is striped, signed, and marked for exclusive or preferential bicycle use and where vehicle parking is not permitted.

**Bike Route** - a facility designated by signing to help make the motorist aware of the presence of bicycles which share the right-of-way with motor vehicles.

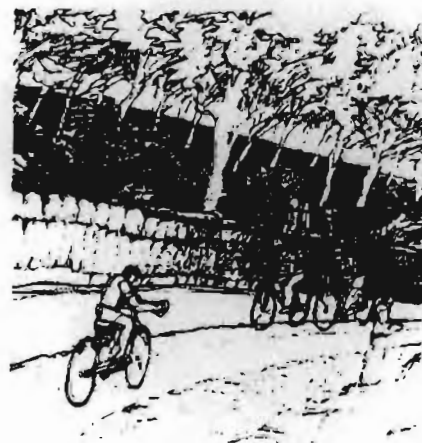
## Bikeway Location Criteria

Bikeway facilities are planned and located to integrate with the existing City street and Park system. The facilities are strategically located on primarily a demand basis to minimize their numbers and to provide a bikeway to a certain areas or neighborhoods within the City. Important criteria used in determining bikeway location are:

- Safety. Existing street width.
- Existing and potential demand for use.
- Continuity and directness.
- Spacing. Relationship to other bikeway facilities.
- Location of schools and other public facilities frequented by bicycle riders.
- Location of linear parks and greenbelts.

## Bikeway Design Criteria

There are numerous design criteria to consider in establishing bikeways in College Station such as bikeway widths, sight distances, and intersection treatment. The width of a bikeway depends on the classification of bikeway, the edge conditions, and maneuvering allowance. Stopping sight distance for bicycles is generally not a problem since roadway alignment usually has been designed to accommodate auto speeds equal to or greater than bicycle speeds. Intersection treatment is very important as statistics indicate that about two-thirds of bicycle/vehicular accidents occur at intersections. The following design criteria for bike paths, lanes and routes were adopted by the City of College Station and taken from



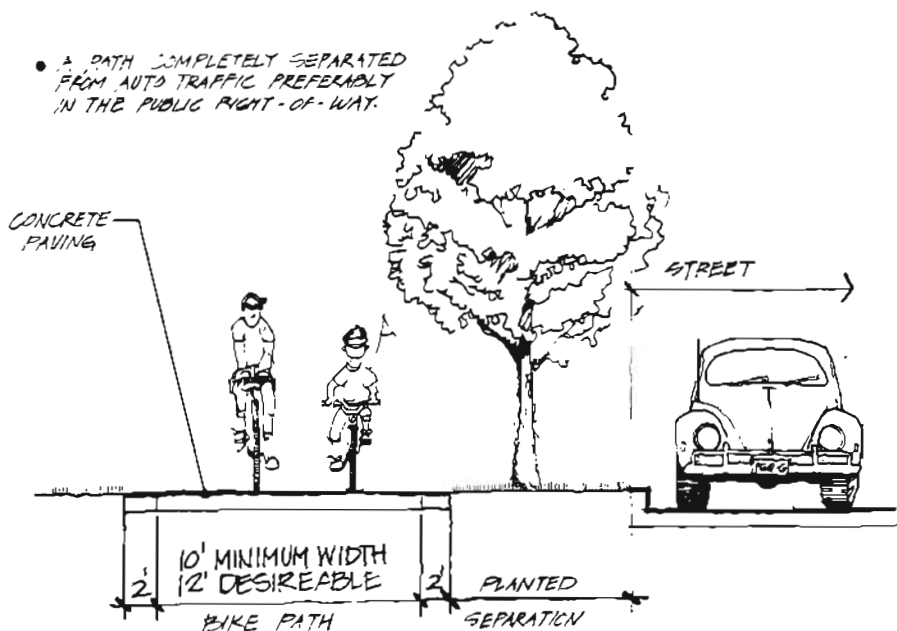


Figure 41 - Bike Path

the AASHTO Guide for Development of Bicycle Facilities.

### Bike Paths

Typical layouts for bike paths is shown in Figures 39 and 40 taken from the AASHTO Guide for Development of Bicycle Facilities. **Figure 41** shows a two-way bike path which is completely separated from auto traffic. Such a facility should have a minimum paved width of 10 feet and a desirable width of 12 feet plus a 2 feet graded width on each side. A width of 10 feet would allow maintenance and emergency vehicles to utilize the path.

**Bike Lanes.** Bike lanes in the City of College Station must be developed as one-way facilities. Two way bike lanes are not permitted because:

- They require unconventional turns at intersections.
- They are conducive to having bicyclist go the "wrong way" and to weave across traffic to bike in the proper lane.
- They require that bicyclist travel in a direction opposite the adjacent auto lane.

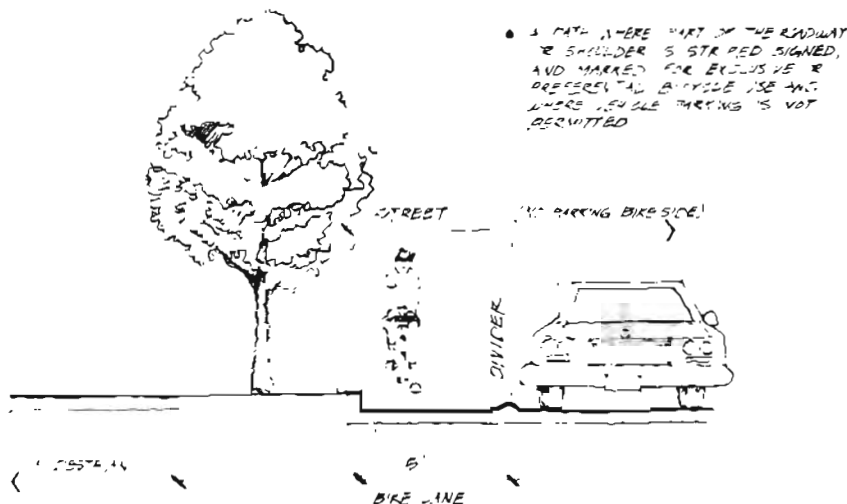


Figure 42 - Bike Lane with Divider

Typical bike lane design and layout is illustrated in **Figures 42, 43, and 44**. A one way bike lane at the curb requires a minimum of 5 feet measured from the face of the curb (Figures 42 and 43). A bike lane on a street with no curb and gutter should also be a minimum of 5 feet outside the auto lanes (Figure 44).

**Bike Routes.** The placement of signing is the only physical design criteria that needs to be considered for bike routes. Bike route identification and directional signs will be located on identified routes as deemed appropriate by the City Traffic Safety Superintendent or his duly appointed representative.

### Bikeway System

The master plan for the College Station Bikeway system is shown on **Exhibit 14**. Major elements of the plan are as follows:

- Extension of the existing system into more recently developed subdivision of southern College Station utilizing bike routes along major thoroughfares such as Longmire, Deacon, Rio Grande, Welch, Rock Prairie Rd.

- Future bikeway connecting neighborhood nodes east of the East By-Pass tying into Highway 30 to the north and

Lick Creek Greenbelt to the south.

- future dedicated Bike Paths located in the Wolf Pen Creek, Bee Creek, and Lick Creek linear parks strategically connect adjacent neighborhoods into these linear parks. This would also allow emergency and service vehicular access into these areas.

- Future Bike Path in the utility easement east of the East By-

Pass connecting University Drive to the north with Lick Creek Wilderness Park to the south.

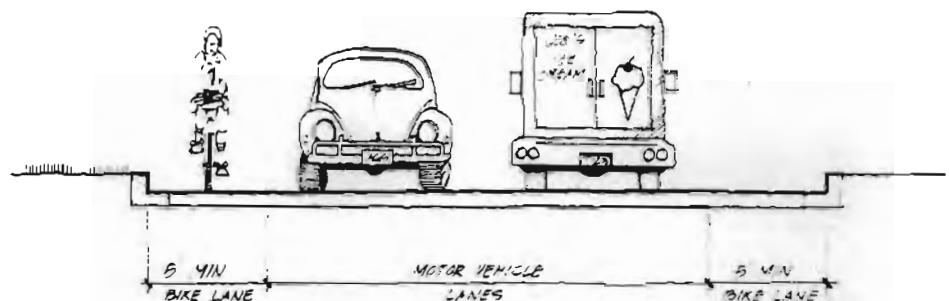


Figure 43 - Bike Lane on Curbed Street

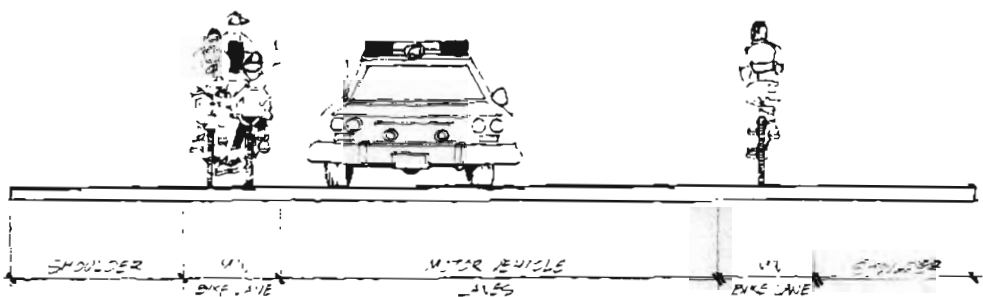






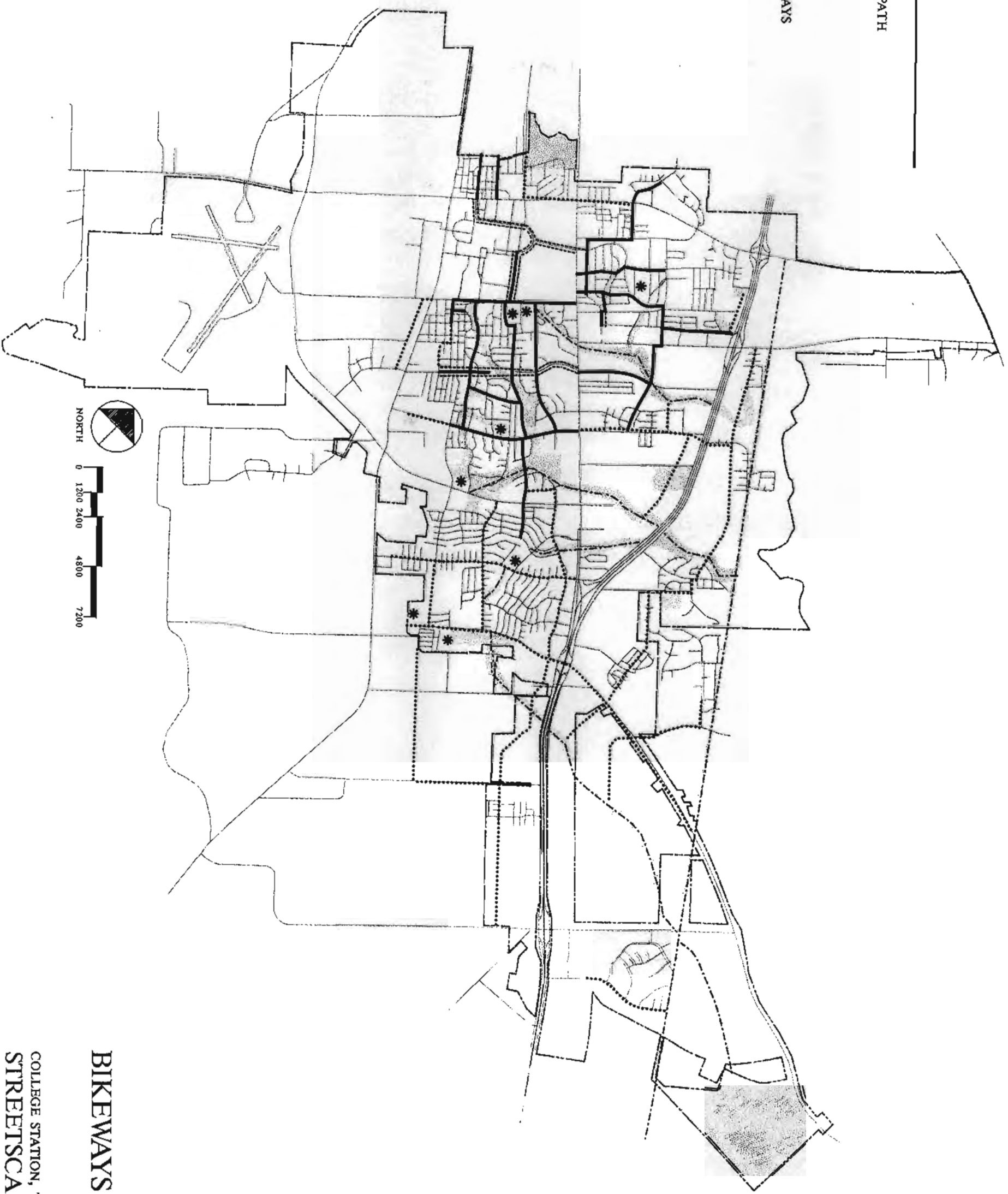


Figure 44 - Bike Lane on Non-Curbed Streets

- LEGEND**
-  FUTURE BIKE PATH
  -  BIKE LANE
  -  BIKE ROUTE
  -  FUTURE BIKEWAYS
  -  SCHOOLS
  -  PARKS



# BIKEWAYS PLAN

COLLEGE STATION, TEXAS  
STREETSCAPE PLAN  
NEWMAN JACKSON BIBERSTEIN, INC.

